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ABSTRACT

A supplement to a project begun to devise methods of handling budgeting in a more systematic way in the Princeton setting, this final report examines budgeting procedures that have been revised, discusses new procedures that have been implemented, and explains procedures now in use at Princeton. Chapter I provides an overview of the Priorities Committee's work over the past seven years and discusses the process by which the Committee determines its budget recommendations each year. The Tenure Flow Plan, which determines the number of tenure openings permitted in each department over a given period of time, is the subject of Chapter II. Chapter III describes the special review that Princeton made of the administrative expenditures of academic departments. Several changes in policies governing the management of the endowment are the subject of Chapter IV. The way in which direct cost rate is calculated is discussed in Chapter V. Chapter VI reviews the changes that Princeton has made in the annual budgeting process since the first report was written. The appendix contains a reprint of "A Financial Primer" (a special publication explaining the steps taken by Princeton in light of financial pressures) and copies of each Priorities Committee report for fiscal years 1973-74 through 1979-80. The importance of the Priorities Committee reports are noted because they show: (1) the change in the financial state over the seven years; (2) the guiding principles for budgeting decisions; and (3) the form in which Princeton reported its views. (LC)

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VOLUME II

Report of a Demonstration Project
Supported by the Ford Foundation

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October 1979

BUDGETING AND RESOURCE ALLOCATION AT PRINCETON UNIVERSITY

VOLUME II

Report of a Demonstration Project
Supported by the Ford Foundation

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October 1979

Princeton, New Jersey

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INTRODUCTION

In 1968, with the generous support of the Ford Foundation, Princeton University embarked on a study of resource allocation in universities. Conceived as a "demonstration project," this study was intended to show what could -- or could not -- be done to handle particular budgeting and other financial problems in a particular university setting. Although the purpose of the study was to assist in devising methods of handling budgeting in a more systematic way in the Princeton setting, it was felt that these efforts might be helpful to others as well. The intention was not to develop general techniques which could be applied to all sizes and types of institutions of higher education, nor to consider theoretical approaches to budgeting in the abstract. But we did think that there might be some general lessons to be learned from our experiences and hoped that other institutions could benefit from reading about both our successes and our failures in the budgeting area.

This is the second, and final, report on the project. In one sense, this document can be considered a supplement to the first report, which was published in 1972, in that it describes a number of specific refinements that have been made in the budgeting techniques discussed in that earlier report. Moreover, this latest report attempts to explain why some of the budgeting procedures we described previously have needed to be revised, and discusses the new procedures that have been implemented. But this report is also meant to stand on its own in the sense that the reader who is interested in understanding the budgeting processes now in effect at Princeton can gain a reasonably full picture of them from this report alone.

It is worth re-emphasizing that the budgeting system described herein represents the response of one university to particular financial pressures in one institutional context. We are well aware that what we have done here at Princeton is not necessarily the best way to handle budgetary problems at all institutions; indeed, at times we are not even sure that it has been the best way for Princeton to handle its own budgetary problems. The Priorities Committee process -- which plays such a key role in Princeton's budgeting system -- is an enormously time-consuming procedure which involves cooperation and close interaction on the part of many different members of the University community. It is very possible that this system could not be transferred -- without substantial changes -- to a larger institution or to one which did not have a closely-knit residential campus. Conversely, budgeting procedures that work perfectly well at other institutions might be even more time-consuming and less effective than the Priorities Committee if we tried to use them in the Princeton environment.

Because our study has been so particularistic, this report contains a considerable amount of detail. The reports of the Priorities Committee, for instance, are included in their entirety for every year since 1972. We believe this serves an important purpose in that it shows exactly how the

Priorities Committee process works and how it has been able to respond to changing circumstances. Indeed, the sense that one gets from these reports of the dynamics of the budgeting process is valuable in itself. A reading of the reports reveals pendulum-like swings in attitude as well as circumstance, as the optimism engendered by projected deficits that do not materialize shifts to new concern when the financial situation worsens suddenly and unexpectedly. Clearly, financial circumstances change over time, and any budgeting process must be flexible enough to respond to those changes, while at the same time it must be farsighted enough to avoid overreacting to temporary fluctuations in the budget deficit or surplus.

Because many readers will not be interested in the detailed discussion in many of the areas covered in this report, a brief description of the contents is included in this introduction to permit selective reading. Before undertaking such a guide to the report's contents, however, it should be noted that our work on budgeting procedures has been guided in recent years by two general principles. First, there has been a conscious effort to simplify the budgeting process. The intent has been to develop uncomplicated systems to handle budgeting problems and procedures whenever possible. The annual budgeting forms, the endowment spending principle, the tenure flow system are all examples of procedures which are as simple and straightforward as we knew how to make them.

The second principle is related to the kinds of choices that we have made. From the beginning, the Priorities Committee has been guided by a philosophy which requires that, in the face of limited resources, the University should do only a relatively small number of things but endeavor to do those things extremely well, rather than spreading resources over a larger number of activities with mediocre results. Consequently, we have generally not made across-the-board budget cuts but have instead attempted to evaluate activities and programs on an individual, case-by-case basis. The decisions we have had to make have been difficult ones, and, clearly, they will become even more difficult in the future. However, we remain committed to this principle in the belief that only in this way can we serve the educational mission of the University.

Chapter I of this report is concerned with the Priorities Committee. It provides an overview of the Committee's work over the past seven years -- showing how it has responded to rapid changes in the financial environment -- and it discusses the process by which the Committee determines its budget recommendations each year.

The Tenure Flow Plan, which is the subject of Chapter II, is the mechanism through which Princeton determines the number of tenure openings to be permitted in each department over a given period of time. Accompanying an explanation of the way the plan works are appendixes which include the various memoranda sent to the faculty introducing the plan and some charts developed by the Dean of the Faculty which project the number of retirements at Princeton over the next 25 years.

Chapter III describes the special review that Princeton made of the administrative expenditures of academic departments. The development of a standard for evaluating departmental budgets and the steps taken to reduce the amount of money spent for departmental administration are discussed in that section.

Several changes in policies governing the management of the endowment are the subject of Chapter IV, including Princeton's move to outside investment managers and the University's adoption of a new endowment income spending policy.

In 1973, Princeton made a complete review of its indirect cost procedures. The way in which the indirect cost rate is calculated, the rationale for changing the rate, and the process of arriving at a new rate are all described in Chapter V.

Chapter VI reviews the changes that Princeton has made in the annual budgeting process since the first Ford report was written. Basically, it shows how the collection of budgeting information from the departments has been simplified radically, by reducing the amount of work required of each department and by adjusting the timing of budget requests.

The appendix to this report contains a photographic reprint of A Financial Primer and copies of each Priorities Committee report for fiscal years 1973-74 through 1979-80. The Primer is a special publication which was sent to all members of the campus community and all alumni to explain the economic constraints acting upon the University and to describe the various steps Princeton has taken in response to its financial pressures. The Priorities Committee reports in their entirety are included here because they (1) show the way the financial situation has changed over the past seven years and how we have reacted to the changes in terms of substantive proposals; (2) elucidate the principles that have guided us in our budgeting decisions; and (3) provide examples of the form in which we have presented our views to our own students, faculty, staff, Trustees, and alumni.

* * * * * * *

Because this has been very much a "demonstration project," which was accomplished only with the individual and collaborative efforts of a host of people, we cannot possibly record here the names of everyone who has contributed to the outcome of this study. The many, many people who have participated in the budgeting processes described in this report include, to mention just some of the most obvious, the faculty, student and administrative members of seven different Priorities Committees, the staffs of the Controller's Office, the Office of the Dean of the Faculty, and the Office of Research and Project Administration, and all the department chairmen and heads of offices who ponder their own individual budgets each year. Without their consistent cooperation and their willingness to try out new ideas -- and to criticize old ones -- we could not have devised or implemented the budgeting procedures described in this report. We are indebted to each of them.

I. THE PRIORITIES COMMITTEE

In 1972, when the first volume of this report was written, the Priorities Committee had already taken on an important advisory role in the budget process at Princeton. Today, it continues to be an extremely effective mechanism for facilitating and improving annual budgeting. In fact, in a period of severe financial stress for colleges and universities across the country, Princeton's ability to respond to financial problems promptly and responsibly can be attributed, to a very large extent, to the Committee's existence and to its good counsel.

The substance of the Priorities Committee process has changed very little over the past seven years. The Committee itself still consists of sixteen regular members -- three administrators who are ex officio members (including the Provost, who serves as committee chairman), six faculty members, four undergraduate students, two graduate students, and one member of the non-faculty staff. It still reviews each of the major budgetary units of the University every year and makes recommendations to the President concerning the annual budget. And it still advises the President on matters of long-range resource allocation. There have been a number of procedural changes over the years -- and, to a certain extent, changes in style and tone as well -- but the basic structure and philosophy of the Committee have changed very little since 1972.

The actual reports of the Priorities Committee for the last seven years -- covering the Committee's recommendations for 1973-74 through the most recent Committee's recommendations for 1979-80 -- are included in the appendixes to this report. We will not, therefore, attempt to describe the history of the Committee in great detail in this section of the report. Instead, we will try to provide a general overview of the Committee's work over the past seven years, and the financial environment in which it has operated. The interested reader should consult the individual reports for a more specific discussion of any one Committee and its recommendations.

The Financial Environment of the Past Ten Years

Figure 1 provides an oversimplified yet revealing picture of the financial situation of the past ten years. The first period of financial stress came as the "golden years" of the 1960s came to a close, and sizeable deficits were incurred in 1969-70 and 1970-71. The major reason for these deficits was the precipitous decline in government support, particularly for graduate education and some areas of sponsored research. Growth in the other major income categories -- earnings from endowment, private gifts and grants, tuition and other student charges, etc. -- was not enough to offset this decline in government support, and total income rose only very slightly between 1969-70 and 1971-72. In order to deal with this problem and to eliminate the deficits that resulted, the Priorities Committee, which was still very much in its infancy, recommended a series of expenditure reductions to be combined with increases in student fees and other charges. By 1972, largely as a result of these actions, Princeton's budget was back in balance.

The next two years presented somewhat different challenges for the Committee. The budget was essentially in balance, and, until the energy crisis of 1974, there were no major shocks threatening the basic equilibrium of the system. Princeton definitely had not returned to the relatively affluent days of the 1960s, but we had achieved some semblance of stability and we could even look for some modest expansion in a few areas. The challenge to the Committee, then, was to choose those few areas where growth would be permitted while holding the line, or even making reductions, everywhere else. In a very real sense, the job of determining priorities is most difficult -- and most important -- under such circumstances. The Committee had to pick, from all the very worthwhile proposals presented to it, those two or three areas where some modest growth would mean the most to the University as a whole.

Among the increases recommended -- and approved -- was a "targets of opportunity" program designed to enhance the excellence and diversity of the faculty. Under this program, departments were encouraged to canvass widely for particularly outstanding people who could make distinctive contributions to the departments and to the University. Appointments under this program were meant to be in addition to, rather than substitutes for, positions already authorized in specific departments. Thus, the program provided individual departments and the University as a whole with the flexibility to add to the faculty a small number of truly outstanding teacher-scholars, even if those people did not fall in precisely the departments and fields where positions had already been authorized. *

Other increases permitted during this period of growth included an overall growth in the size of the faculty (3% for FY74 and a projected 1% per year after that), a modest expansion of our effort in the creative arts, and some improvements in graduate and undergraduate financial aid. There were also some increases in athletics and other student services, and in a few essential administrative and supporting services.

This period of relative stability ended in 1974 when a combination of double-digit inflation and a poor performance by the securities markets left us facing a sizeable deficit. The principal activity took place on the expense side of the budget: the Arab oil embargo of 1973-74 and the resulting increase in the prices of all forms of energy raised our total energy bill from approximately $1.7 million in 1972-73 to more than $3.3 million in 1974-75, an increase of more than 90% in just two years. Prices for goods as diverse as food and library books grew almost as rapidly. As Figure 1 indicates, expenditures increased at a faster rate during this period than we had any reason

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* Although Princeton's worsening financial situation has precluded continuation of this program in recent years, there were nevertheless very important appointments made while it was in operation. Moreover, it is still possible to think along these lines for some very special appointments, and to hope that it will be possible to reinstate the program at some time in the future.

to expect, and income was simply unable to keep up.*

The University, and particularly the Priorities Committee, struggled with this problem for more than two years. In January 1975 the Committee projected a deficit of approximately $1.5 million for 1974-75 and a slightly larger amount for FY76. That Committee and its successor recommended a number of stringent actions to eliminate that deficit: a rigorous energy conservation program designed to reduce total energy consumption by at least 25%; major reductions in the budgets for Physical Plant, Food Services, Security, and other supporting services; a reduction of just over $700,000 (about 5%) in the central administration; a reduction of approximately 4% in the size of the faculty; a major review of the administrative and operating expenses in academic departments (which ultimately saved about $400,000);** significant increases in student fees; and many other steps, both large and small. Although not all of these planned actions were achieved in their entirety, the net result of the Committee's efforts was a balanced budget in FY77.

Our experience over the last three years has been somewhat mixed. After it became clear that the budget was balanced for FY77, the Committee became slightly more optimistic about FY78 and beyond. As a result, it recommended that a few reductions be restored in FY78 and that the increase in student fees be held to 6.7%. In retrospect it appears that we were too optimistic: we ended up with a deficit of $814,000 in 1977-78 and current projections predicted a deficit of about $500,000 for 1978-79.

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*The variations in the growth of expenditures and income are not depicted as sharply in Figure 1 as they might be because of the influence of the Plasma Physics Laboratory budget: over the past seven years PPL -- a research facility funded entirely by federal funds -- has been expanding rapidly, thereby artificially inflating Princeton's overall budget.

** See Chapter III of this report for a description of the way in which those budgets were reviewed.

The budget which the Committee has recommended for 1979-80 is balanced, but the decisions that had to be made to avoid another deficit were extremely difficult ones. Although the Committee had been presented with more than $2 million in new requests, almost all of which represented genuine needs and many of which seemed quite urgent, the members felt it necessary to turn down all but a very few. Moreover, in developing projections for the years beyond 1979-80, the Committee found that, unless further action was taken, new -- and sizeable -- budget deficits would occur. Although expenditures in general were increasing at an average of about 7%, income was growing at a rate in the 6 to 6.5% range, and the Committee argued that this situation was not likely to change markedly in the near future.

Although it is difficult to predict exactly what will happen to the budget in the coming years, a better equilibrium between growth in income and in expenditures must be established. New sources of income will have to be developed and expenditures will have to be pared even more, almost certainly by making selective reductions in the budget base. We believe that the Priorities Committee provides us with the right mechanism to make these decisions, hard as they will be. Indeed, we believe that the Priorities Committee has already made it possible for the University to deal with its problems sooner than many other institutions, and, by coping with those problems promptly, to keep them from becoming even more serious.

Procedures of the Committee

The procedures developed by the Committee for the actual conduct of its review of the budget have changed very little since the first Priorities Committee. They are still geared to having the Committee make its recommendations to the President in early January so that he in turn can make his recommendations to the Board of Trustees in late January. Thus, most of the Committee's work is concentrated in the fall semester.

The Committee meets roughly twice a week starting in mid-October. Most of the meetings before Thanksgiving are devoted to detailed reviews of major budgetary items. This process can take anywhere from eight to twelve meetings, depending on the overall financial situation and on the nature of the budget requests being made. The items which must be covered in some form include faculty staffing, salary increases for faculty and staff, research support, the Library, the Computer Center, McCarter Theatre, Athletics, Physical Planning and Facilities, central administration, academic departmental administration, student charges and financial aid (both graduate and undergraduate), and rents for faculty and staff housing.

In most cases the person responsible for preparing a budget request for a major unit describes his or her request in a written report, which is distributed to the Committee in advance of the meeting. The Associate Provost, who sits with the Committee, generally works with the people preparing these reports to make them as meaningful as possible for the Committee. The objective of the reports is to describe the current budgetary situation in that unit as simply yet completely as possible, and then to describe in detail the changes being requested and the reasons for them. In every case, these reports are reviewed with the Associate Controller in as much detail as time permits, to insure that the information being transmitted to the Committee is consistent with the budgetary information developed in the Controller's Office.

The administrator who prepared the report then meets with the Committee to discuss the budgetary situation and the request for the upcoming fiscal year. In that meeting, the administrator has an opportunity to explain and defend his or her request in more detail than is possible in a written report. The Committee, on the other hand, has an opportunity to probe a bit into the budget. Individual members of the Committee can test whether each administrator's perception of the needs of his or her unit is consistent with the Committee member's own experiences. Given the diversity of the Committee's membership, these are frequently interesting and revealing sessions. In any event, these meetings provide an opportunity for the Committee to ask all of the important "what if" questions: what would happen if your budget were cut by 10%?, what if it were increased even beyond the level requested?, and so on. The answers to these questions, and any other information that is picked up, are stored away for later use.

After each budgetary unit has been reviewed separately, the real work of the Committee begins. Toward the end of November, the Controller's Office adds up all of the requests made by the individual budgetary units. At the same time, the Committee reviews all of the income and expenditure items which are not completely (or not at all) under its control --e.g., government-sponsored research or earnings from endowment. Then, based on the information available at the time, it makes the best estimates it can, and these items are then combined into one overall budget projection.

Since all of the various budget requests are included in their entirety at this point, this exercise invariably shows a large deficit. The Committee reviews that deficit, and then returns to the individual budget items. Based on the information gathered in those earlier meetings, particularly the answers to the "what if" questions, and on the members' collective sense of the true needs of the University, the Committee begins to make judgments about what actions make the most sense. Over the course of the four to six meetings between Thanksgiving and the start of Christmas vacation, a package of budget cuts (or reductions in requests) and income increases is developed and agreed upon. In effect, this package represents the Committee's budget recommendation, still tentative at this point but quite specific and detailed.

Over Christmas vacation a draft of a Committee report is prepared based on this tentative set of recommendations. In addition, four-year projections are prepared based on those recommendations, indicating what could be expected to happen if the basic policies contained in those recommendations were extended into the future. In early January the Committee reconvenes and, in an intensive week of activity, modifies (or reaffirms) its tentative recommendations based on (1) any second thoughts the members might have had over the vacation or after reading the draft of the report, or (2) anything the projections might reveal about the implications of those recommendations for future budgets. The Committee also adopts a set of assumptions to be used in a final set of four-year projections, concentrating mainly on the major decision variables such as tuition levels and salary increases. Then it approves a final report transmitting all of these recommendations to the President. After some discussion with the Committee and with members of the broader University community, the President transmits his own recommendations to the Board of Trustees.*

Although the mechanics of this process have changed very little over the years, the atmosphere in which it is conducted is quite different. The biggest change since 1972 is that the level of interest -- and concern -- on the part of the University community, particularly students, is much higher now. The interest was most visible in the spring of 1975 when a group of students concerned about increases in student fees and reductions in what they perceived to be essential services organized a number of protest demonstrations. There have not been any major demonstrations on budgetary issues since then, but the level of interest in budgetary matters remains relatively high, or at least higher than it was in the early days of the Priorities Committee.

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*It should be noted that in recent years the Committee itself has begun to consult regularly with the Trustees (particularly the Finance Committee of the Board) during the budgeting process. This early exchange of information has proved to be extremely worthwhile, both for helping the Committee keep abreast of Trustee thinking, and for keeping the Trustees informed of the Committee's deliberations.

One of the disadvantages of this increased interest on the part of students, and to a certain extent faculty and staff as well, is that the budgetary process has become somewhat more political. Individual members of the Committee are more aware of what their "constituencies" are likely to favor, and thus it is somewhat harder for them to think about what may be best for the University as a whole. To some extent, this has resulted in an increased tendency to compromise on issues.

This development should not be overstated, however. Although there has probably been a slight movement in this direction, it has not seriously affected the substantive work of the Committee. In fact, there have been some very real benefits for the Committee -- and, we believe, for the University as a whole -- from this increased interest on the part of the wider community in budgetary matters. In general, the Committee's greater awareness of the concerns of students, faculty, staff, and alumni has improved the budgeting process. A committee of sixteen, no matter how carefully it is chosen, can never hope to capture within its membership the full range of views and perceptions of a community as large and diverse as Princeton;

a broader range of comments and suggestions can markedly expand the Committee's understanding and sensitivities.

Another benefit of the increased awareness of budgetary matters is a better understanding on the part of many members of the community of the financial problems the University faces. Although the working meetings of the Committee remain closed (except for invited guests, such as the administrators making budget presentations), an effort has been made over the years to increase the communication between the Committee and the wider community. The Committee now makes regular oral progress reports to the public meetings of the Council of the Princeton University Community (CPUC) -- the overall organization of students, faculty, staff, administrators, and alumni of which the Priorities Committee is one of the charter committees. It has also held several public meetings over the last few years to discuss budgetary problems. Both at the CPUC meetings and at its own public meetings, the Committee has tried to indicate its own sense of the situation, as well as to solicit the views of others. Also, in order to provide people with a better understanding of the problems, the Committee has generally made available to the campus press and the wider community the various written reports that are prepared for it by administrators responsible for budgetary units. Although there are obviously disadvantages to the Committee's increased visibility, it appears that the benefits of improved understanding of the Committee on the part of the wider community, and vice versa, more than offset the associated problems.

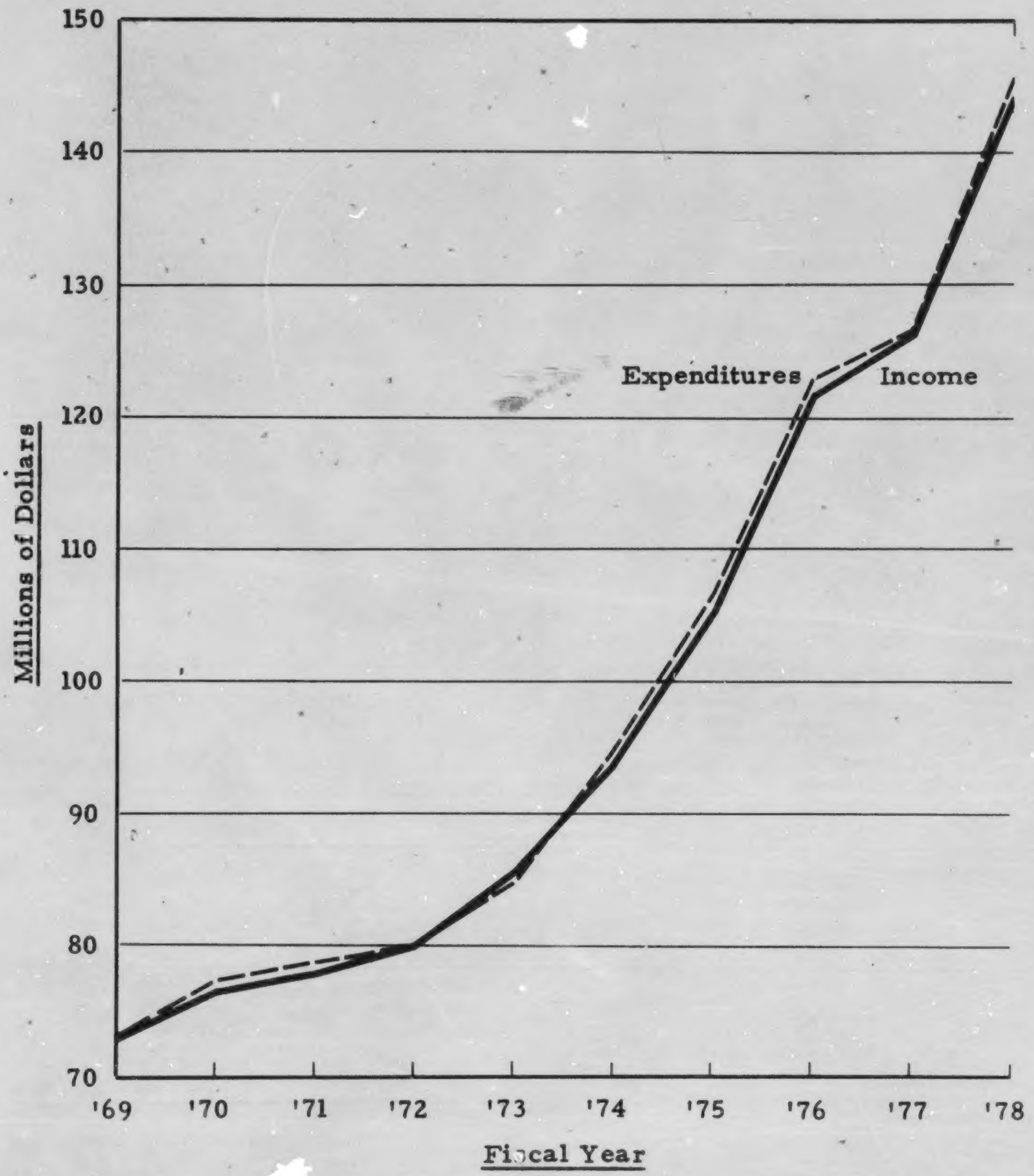
In the earlier volume of this report, it was argued that the Priorities Committee had been "successful" in two important respects:

> "-- First, the work of the Committee has helped us make better decisions than we would have made otherwise.
>
> "-- Second, the Committee has helped to increase understanding of the University's financial situation, and what we are trying to do about it, among students, faculty, administrators, alumni, and others." (p. 123)

We continue to believe, if anything even more strongly than we did in 1972, that the Committee has been successful on both these fronts. The University has dealt with serious financial problems over the past several years, and we believe that we have weathered those storms in relatively good shape. The Committee's contributions in that work have been important ones. Its recommendations each year have been accepted in their entirety by the President and the Trustees. And, significantly, this acceptance is not attributable to any statutory authority, or even to great political power, but is rather the result of the strength and logic of the cases made by the Committee.

We do not pretend that the Priorities Committee model is appropriate at other institutions. A larger, more complicated university might well lack that commonality of interest and sense of shared objectives which, at least in fairly general terms, seem to exist on this campus. A smaller college or university, on the other hand, might not be able to review budgetary issues in general terms without getting too involved in the day-to-day management of the institution. At Princeton, however, we believe that the Priorities Committee has both improved the quality of the actual budgetary decisions and enhanced the understanding of our financial problems by all members of the University community.

Figure 1
Princeton University Operating Budget
Total Expenditures and Total Income
FY 1969 - FY 1978



II. THE TENURE FLOW PLAN

At the beginning of 1973-74, Princeton found itself in a fortunate position. The University had an extremely healthy tenure ratio which, because of the dynamics of the faculty's growth, had essentially not increased in twenty years. Of the 686 full-time-equivalent faculty (FTE's) at Princeton that year, 368 were Full and Associate Professors (tenured) and 173 were Assistant Professors (non-tenured); the other 145 FTE's were instructors or lecturers, positions that do not normally lead to tenure at Princeton. Therefore, 68% of the total of 541 professors were in the tenured category.

A ratio of roughly two tenured to one non-tenured (but on tenure track) was felt to be "healthy" because, theoretically at least, it provides every assistant professor with a reasonable chance of being promoted to tenure while at the same time it allows the University to be very selective in its promotions to tenure. Very generally, this reasoning is based on the following calculations: if one takes the average teaching life of a tenured member of the faculty to be 35 years and that of a non-tenured member of the faculty to be six, and if one also assumes that the age distribution of the tenured faculty is uniformly spread between 33 and 68, then a ratio of two to one means that, on the average, the natural retirements of tenured faculty will open up one tenured position for every three non-tenured faculty.

The chances of promotion will almost certainly not work out to exactly one-in-three because the age distribution of the tenured faculty is not uniform and because some tenure appointments will be made from the outside. On the other hand, however, resignations will counter this to some extent. All in all, a tenured ratio of 68% (approximately two tenured to one non-tenured on tenure track) seems like a workable ratio with a great deal of flexibility. The fact that this ratio remained so constant at Princeton over a 20-year period is remarkable, since, during the first 15 years of that period the faculty nearly doubled, while over the last five years, the faculty has barely grown at all.

In the early 1970s it became apparent that Princeton, along with other colleges and universities nationwide, was entering a new era, and that the next 10 to 15 years would be difficult ones with respect to faculty appointments and promotions. This pessimistic forecast was based on two factors. The first was the realization that both demographic and financial conditions would work together over that period to preclude any significant growth in the overall size of the faculty. The second was the expectation that faculty turnover during the same period would be reduced, due to a projected drop in both the number of retirements and the number of resignations. Princeton's previous turnover rate, in which we had lost 20 to 25 tenured faculty members per year (an average of two to death, ten to resignation and ten to retirement) was expected to be cut by about half over the next 5 to 15 years. This drastically reduced rate was a result, first, of the age distribution of the faculty in 1973-74 (see Figure 1), which was such that there simply would be fewer people arriving at retirement age. In addition, with enrollments across the country leveling off, the job market for faculty had become much tighter nationally. Colleges and universities were doing less recruiting generally, and some reduction in the number of resignations was inevitable.

These two trends would inevitably limit the number of tenure openings, and it was clear that we had to do all we could to minimize the deleterious effects of such a situation. We knew that, if we did not plan - and plan carefully - we would, in the very near future, come to a point at which no further tenure appointments could be made in many departments.

The result was a tenure—flow plan, conceived and constructed in the Dean of the Faculty's office, which determined the number of tenure openings to be permitted in each department in a given period of time. In order to determine the number of openings, the existing tenure ratio was calculated and then compared to the "ideal" ratio of two-thirds. If the ratio was already at two-thirds, the number of openings expected from retirement over the next 16 years* was calculated. These openings represented the number of tenure appointments that the department could make. Then, for planning purposes, these appointments were spread approximately uniformly over the 16-year period. This constituted the department's tenure-flow plan. If, on the other hand, the department's ratio was not at two-thirds to begin with, the number of openings resulting from projected retirements was adjusted so that, by the end of the 16 years, a two-thirds ratio would be achieved.

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* A 16-year period was chosen to cover the next two periods (of three years each) when assistant professors would come up for tenure, plus an arbitrarily chosen 10-year period into the future.

It should be emphasized here -- and we were careful to make this point to the departments -- that, even under these new, stringent conditions, we believed that a continued regular, albeit smaller, flow of tenure appointments to all departments was of utmost importance. Central to the plan, therefore, was the assurance that for each department some regular flow of tenure openings would be provided during the difficult period ahead. Even those departments with large tenure ratios and few (or no) retirements would be able to make at least some tenure appointments, and every junior faculty member would have some possibility of gaining tenure. *

In October 1973, the tenure-flow plan was announced to all departments in a memorandum entitled "Planning in the Face of a Slowed Rate of Growth and Decreased Turnover in the Faculty." (A copy is attached as Appendix II-1.) That memorandum described the problems we anticipated would occur over the next decade or so. It explained that, without careful planning to

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* The importance we placed on having the flexibility to make new appointments outside of the normal tenure-flow plan is also reflected in the "targets of opportunity" program described in the section of this report on the Priorities Committee.

counter this period of minimal growth and relatively little turnover, we ran the risk of building up a tenured faculty which, for an extended period of time, would not have any room in its ranks for newcomers. Were this to occur, we would end up with a faculty aging together without the stimulation, new ideas, and vigor -- to say nothing about coverage of some of the newer fields of knowledge -- which are brought by new young tenure appointees.

The general memorandum on the tenure-flow plan was accompanied by an individual statement for each department which listed the number of tenure openings available to that department over the next three years, the next six years, and in the ten years beyond. No department (with the exception of very small ones, such as the Program in History and Philosophy of Science, where the tenure openings would be made as needed) had a tenure flow of less than one in the next six years, and none had fewer than one per five years in the ten years beyond that. (Copies of the original memorandum and several of more recent vintage serving the same purpose are shown in Appendixes II-2 through II-5.) Since the first announcement of this plan in the fall of 1973, we have found that it is important to send a new memorandum to each department every year, in order to take account of resignations, deaths, promotions, or even changes in the size of the department. Furthermore, since the plan is based on a 16-year planning period, an up-to-date version each year is very much to be desired in order to extend it one more year into the future.*

The response to the tenure flow plan was generally excellent. Department chairmen -- and the rest of the faculty as well -- understood the plan and the reasons it was necessary. The junior faculty were clearly sympathetic to the problem, and seemed pleased (if that is the right word) to know something about their chances for tenure, even if they were not pleased with what these chances actually were. Moreover, there was every evidence that departments and members of the faculty were responding the way we had hoped: they began immediately to plan. Of course, our task would have been much harder and our proposals much less acceptable to the departments if the University had begun that difficult period in an overtenured position. Nevertheless, if the plan had not been implemented so quickly and so willingly, it would have been impossible to avoid a major dislocation.

Both the University as a whole and the individual departments have clearly benefitted from the need for foresight and more careful selection dictated by the plan, and from the provision for an orderly flow of tenure openings in each department. It can be argued, however, that the new tenure flow system has had a negative effect on Assistant Professors, in that their chances for tenure have been considerably reduced. It is a fact that, since the tenure flow plan was introduced, the fraction of Assistant Professors promoted at Princeton has dropped from something in the range of one-in-three or one-in-four, to a range of one-in-five or one-in-six. Although this reality cannot be ignored, we believe that the situation would have become much worse for the next generation of Assistant Professors if this action had not been taken when it was. Moreover, every effort has been made to keep Assistant Professors informed about their situation. Department chairmen have been asked to share the tenure flow data with them and to arrange yearly conferences with all Assistant Professors to keep them as fully informed as possible about their career prospects. The Dean of the Faculty, in a further effort to ease the anxieties caused by lack of information, meets regularly with groups of Assistant Professors; he sees all first-year Assistant Professors in a group every year, and all second-and third-year Assistant Professors, and all fourth, fifth-and sixth-year Assistant Professors, from time to time during the year. As part of this effort to keep every tenure candidate fully informed, a specially prepared packet containing information from a variety of sources on salary recommendations, reappointment, and promotion to tenure is given to each Assistant Professor. In addition to these sources of information, an article describing the tenure process was prepared for the Princeton Weekly Bulletin, which is distributed to all members of the faculty and staff, because a surprising number of people at Princeton still did not understand the process. (A copy of the article is in Appendix II-7.) All in all, considerable effort has been devoted to providing Assistant Professors especially, and the entire University community more generally, with more information about the procedures by which reappointment and promotion decisions are made, and a better understanding of the basis on which these decisions rest.

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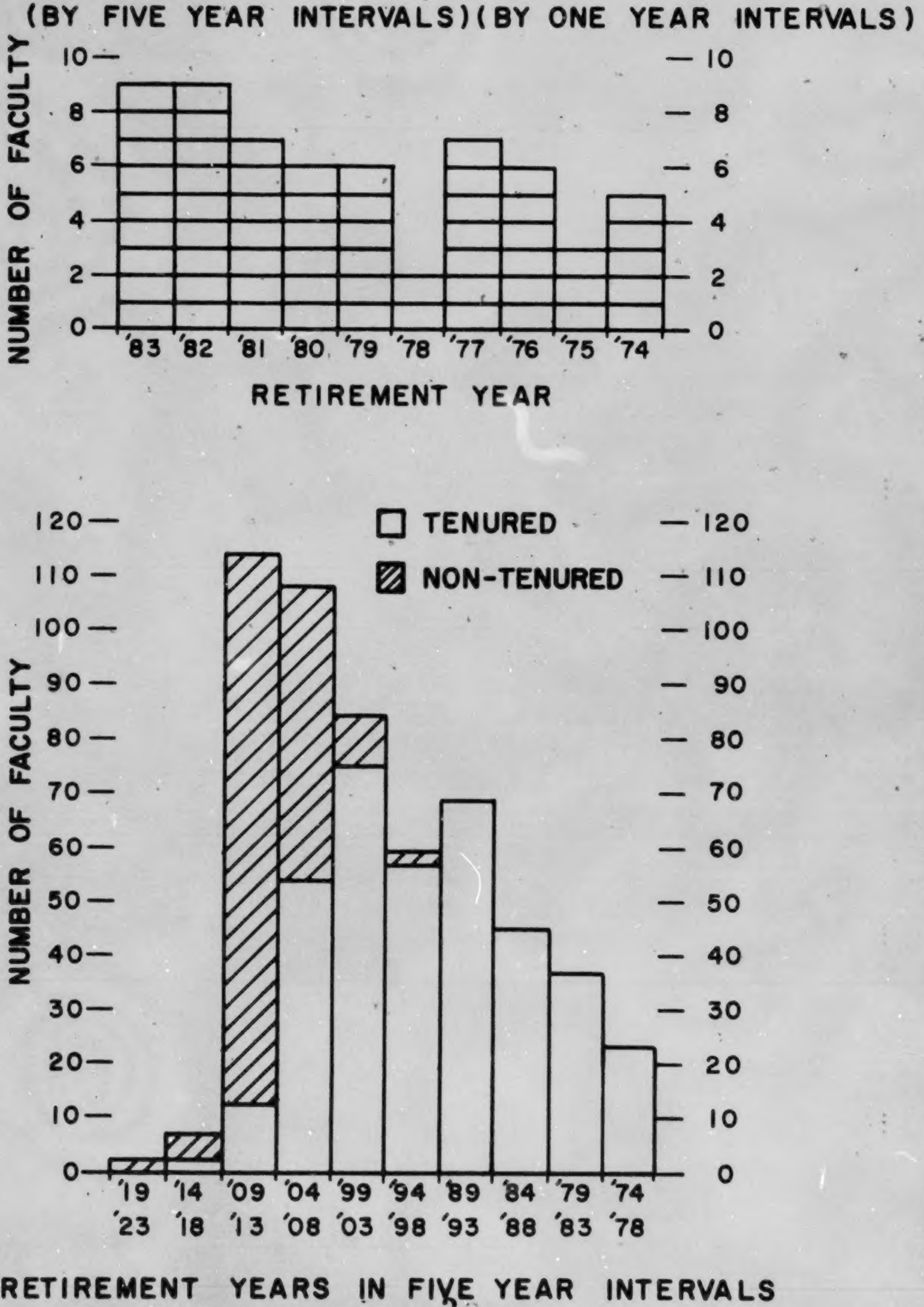
* In 1978 Congress passed legislation extending the retirement age to 70, with an exemption for tenured faculty through 1982. Although the plan has not been fully updated to take account of this legislation, it is clear that the guiding principles of the tenure-flow plan would remain the same, and, in fact, would take on even more importance than before. Appendix II-6 indicates how this legislation might affect the tenure-flow plan.

The tenure-flow plan has now been in operation for five years and it seems fair to say that it has, by this time, been accepted almost without qualification. There are, certainly, requests by departments for permission to exceed it, and the Dean of the Faculty remains flexible wherever possible. The quality of the discussions surrounding these requests, however, indicates clearly that the plan has been accepted as a fact of life, and not necessarily an evil fact. Everyone is aware of the need for planning; faculty and department chairmen seem to accept the compelling logic of the situation.

There is at least one net result of the tenure flow plan which can be quantified exactly. Over the past five years, seventy-six faculty members have left the tenured ranks by virtue of retirement, resignation, death, or transfer to inactive status due to disability. During the same time, seventy-seven people have been added to the tenured ranks by promotion from within and appointment from without. Thus, the net change in a tenured faculty of some 370 has been one in five years. That does not indicate excessive virtue but it certainly is an important statistic when, over the same period, the tenured faculty nationwide has risen by more than 20%.

FIGURE 1

NUMBER OF FACULTY RETIRING



Princeton University: **DEPARTMENT** Dean of the Faculty

To CHAIRMEN OF DEPARTMENTS AND
DIRECTORS OF PROGRAMS

DATE October 19, 1973

SUBJECT Planning in the Face of a Slowed Rate of Growth and Decreased Turnover in the Faculty

FROM Aaron Lemonick

From all indications, the next ten to fifteen years will be difficult ones for the University. Our inability to plan significant growth in the faculty and a reduced rate of turnover will in that period limit the number of tenure openings. We believe that it is, however, of utmost importance to assure even under these conditions a continued regular flow of tenure appointments because of the vigor, the new ideas, the renewal of the fields that such flow brings. It therefore seems to us that departments must plan ahead and that to plan ahead departments need to know what they can expect in the number of tenure appointments in the foreseeable future. It is for that purpose, and to set forth the facts we face, that I am writing to you.

The Faculty at Princeton increased rapidly and steadily (almost doubling) between 1954-55 and 1969-70. Since that time, some five years, it has remained roughly constant with about 750 of whom about 370 are tenured. Projections by the Priorities Committee suggest that over the foreseeable future the size of the Faculty must be expected to remain roughly constant except as new funds permit the establishment of new positions. Just as sustained growth brings its own problems, both immediate and for the future, so does little or no growth when combined with small turnover. The problems of the latter are easily stated: an aging faculty and the risk that unless there is good planning, there will be a tenured faculty which has no room for newcomers to its ranks over extended periods of time. Since small turnover is a major contributing factor -- and the new element in our situation -- let me tell you what I know of the prospects for turnover for the next ten to fifteen years and how it differs from the immediate past.

In the past five years through 1972-73, between 20 and 25 faculty per year on the average joined the tenure ranks, by promotion from inside or by appointment from outside (about half and half). During the same period between 20 and 25 left the tenure ranks by resignation, retirement, or death. Death accounted for very few, less than 2 per year; retirements and resignations accounted for the rest (about half and half). What we face in the future is this: First, we have no way of predicting the exact number of resignations over the next ten to fifteen years but it is reasonable to suppose that in the present situation in higher education (with less recruiting by colleges and universities generally as enrollments stop increasing) there will be fewer resignations (there were already fewer by a factor of three in 1972-73). Second, we do have a way of predicting the number of retirements by simply counting the number of tenure faculty who are eligible to retire in the next five, ten, fifteen years. From such a count it is clear that there will be fewer retirements than in the recent past by roughly half.

This is the situation faced by the University as a whole -- the situation in some departments with respect to retirement is far better than this, in some

INTER-OFFICE CORRESPONDENCE

it is far worse. In all cases it is clear the only way a department can maintain flexibility for future tenure appointments over the next ten to fifteen years is to plan for it now.

My staff and I have, over the past several months, been gathering and analyzing the data which must be the basis for such planning. In order to decide what to do in the short-run, three to six years, we have had to be concerned about the retirement pattern and the likely pattern of tenure appointments over the much longer period of about twenty-five years. We don't claim to see that far, but we feel that it is necessary to make a projection, flawed though it is, in order to make sure that what we do now does not produce serious problems then.

In setting the number and frequency of tenure positions we assume that departments will remain at roughly their present size over the next ten or fifteen years. We know that this takes into account neither shifting enrollments nor the waxing and waning of fields which is bound to occur. We have no way to take these into account at present, but we are aware that as the years progress and the size of departments is considered anew each year, such changes affect the plan. We have also not been able to take resignations into account. This is not because there will be none, but rather because there is no way of predicting when and in what departments they will occur.

Using the working assumption of constant size of departments and taking retirements but not resignations into account, I have prepared for each department a tenure position plan for the next six years which I shall be communicating to each of you respectively in a separate memorandum. The purpose of this plan is to assure that each department will be able to maintain over the next ten to fifteen difficult years some regular flow of tenure appointments.

There is, of course, the problem of a number of departments which already have a comparatively large number of tenured professors, or a small number of anticipated retirements over the fifteen years ahead, or both. The President, the Provost, and I believe so strongly that it would be very bad if the flow of tenure openings were to cease altogether for any extended period in any department that we have assigned a steady albeit small, flow of tenure appointments to these departments as well. Guaranteeing that no department will be without tenure positions to be filled can only be done at a cost. There will of necessity be a not insignificant increase in the number of tenured faculty while the total faculty is remaining constant. We believe that it is better to accept this bulge in the number of tenured faculty than to insist mechanically on maintaining the present tenure ratio. This bulge in the number of tenured faculty, which will persist until the number of retirements begins to rise in the late 1980's, will be costly and dangerous if we allow ourselves to become too accustomed to it and don't face the fact that for the continued health of the University it will eventually have to be reduced.

Princeton actually finds itself in quite a fortunate position compared to some of its sister institutions. In spite of the fact that it was growing vigorously Princeton actually maintained an almost constant tenure ratio and did not give in to the temptation to overload its tenure ranks. How quickly things can change if one is not careful, is at least in part indicated by some startling statistics. Nationwide, the tenure ratio in colleges and universities has gone from 46.7% in

1968-69 to 64.7% in 1972-73. There will soon be no opportunities for tenure appointment in many institutions, especially in the face of the predicted drop in enrollments over the next fifteen to twenty years. Our comparative advantage in finding ourselves at the start of these years without being over-tenured allows us to get through the years immediately ahead without major dislocation if we are willing to plan.

Finally, for the sake of the University and of the departments, any such plan as this must be with the assumption that each tenure opening will be filled by a person of the highest quality and that for each such opening all candidates, inside and outside, will be most carefully considered and only those whose quality and potential contribution is very high should be appointed to fill one of these openings.

I cannot close without saying a few words about what I think will be the effect on junior faculty now here. I realize that the tone of this memorandum has been somber, but everyone should also know that, for the University as a whole, we believe there will be almost as many tenure openings in the next five years under this plan as there were promotions to tenure in the past five years. Now -- you may be quick to point out that the number of tenure openings in the next five years will have to accommodate both promotions from within and appointments from without; that is so, and it would be a serious error, I believe, to try to reserve all tenure openings for promotion from within. However, you must also remember that the number of tenure openings does not take into account resignations at all. Nor do we know how well we shall do in securing new funds for new positions.

I do not wish to hide the fact that junior faculty in some departments will face more severe competition for tenure places than was the case during much of the 1950's and 1960's. That is going to be true at virtually all major universities for the reasons given above, rooted as they are in the current age distribution of the faculty and nationwide trends in enrollment and in financial pressures. At the same time, it is easy to overstate the problems and I do not want to be unnecessarily alarming. In some departments there will actually be more tenure openings in the next five years than in the past five years. And, because we are willing to accept a temporary increase in the tenure ratio there will be no department in which there are no opportunities for new tenure appointments for an extended period of time. Also, we are determined to reserve enough flexibility to make room in the tenure ranks for the absolutely outstanding individual, whatever the short-term constraints.

Our choice is not between planning and no planning, painful as the process of planning is, but between conscious planning and inadvertently making decisions now that will foreclose other options later. Fairness to individuals and the long-range interests of the University require that we do our best to look ahead and that I provide you with as much information as I can on which to base your recommendations. It is in that spirit that this memorandum is written.

AL:ls

(September, 1974)

PRINCETON UNIVERSITY
Dean of the Faculty

October 19, 1973

TO: Chairman, ____

FROM: Aaron Lemonick

What follows refers to my memorandum entitled "Planning in the Face of a Slowed Rate of Growth and Decreased Turnover in the Faculty" dated October 19, 1973. The number of tenure openings which will be available to your department in the next three years (1974-75 through 1976-77) and in the next six years (1974-75 through 1979-80) is shown below. I have also shown the projected rate for your department over the ten years beyond these six. These numbers are based on the assumption of a constant sized department and on known retirements.

These numbers reflect the situation in your department as it is now (1973-74) including any changes which have already been authorized. These numbers include any vacancies in the tenure ranks which you are already now authorized to fill. If the size of the department or its situation changes next year or in the years beyond, we are prepared to consider appropriate changes in these numbers.

The number of new tenure appointments available to your department in the three years, 1974-75 through 1976-77 is

____

____.

The number of new tenure appointments available to your department in the six years, 1974-75 through 1979-80 is

____

____.

It is manifestly impossible to make longer range projections with any strong expectation that they will remain valid over the years. However, to the best of our ability to project, the long-range rate of new tenure appointments in your department over the ten years beyond the six above (that is, the years 1980-81 through 1989-90) is

____

____.

Is is our intention to revise these numbers every two years (every year, where necessary) for every department. I would be glad to talk with you either about the general question involved or about problems peculiar to your department.

AL:ls

Appendix II - 3

Princeton University: DEPARTMENT

INTER-OFFICE CORRESPONDENCE

To Chairmen of Departments and
Directors of Programs

Date September 25, 1974

Subject Tenure Flow Revisions

From Aaron Lemonick

Last fall, I sent you a memorandum dated October 19, 1973, entitled "Planning in the Face of a Slowed Rate of Growth and Decreased Turnover in the Faculty" (a copy of that memorandum can be found in the Chairman's book which will be issued by this office within the next two weeks). All indications are that the assumptions and the conclusions in that memorandum remain valid. The need to control tenure flow is no less with us this year than it was last year. From all we can tell the need will persist because there is every reason to believe that we have ten to fifteen difficult years ahead.

Along with the memorandum of October 19 was another which gave, for each department respectively, the number of tenure openings available to the department in the three-year period 1974-75 through 1976-77, in the three years 1977-78 through 1979-80, and in the ten years beyond. In that memorandum we stated our intention to consider revision of these numbers every year if the situation in a department changed. The situation in some departments has indeed changed. There have been appointments or promotions to tenure, there have been resignations or deaths. (Retirements are not considered to be changed situations since they were already taken into account in the original assignment of tenure positions.) Furthermore, in some cases, tenure positions which last year were projected in the "ten years beyond the next six years" have, with the passage of a year, become part of the complement of tenure positions for this year's "next six years".

I am writing to you now to tell you the number of tenure openings which will be available to your department in the next six years and, by a much less certain projection, the rate of new tenure positions in the ten years beyond that.

The number of new tenure appointments available to your department in the three years, 1975-76 through 1977-78 is:

____

____

The number of new tenure appointments available to your department in the six years, 1975-76 through 1980-81 is (this number includes the number above):

____

____

To the best of our ability to project the long-range rate of new tenure appointments in your department in the ten years beyond the six above (that is 1981-82 through 1990-91) is:

____

____

Please note that only the tenure openings shown as available to your department in the three-year period (1975-76 through 1977-78) are available in that three-year period. Tenure openings listed as available in the second three-year period (1978-79 through 1980-81) are not available for use in the first three-year period except under the most unusual circumstances.

Also note that the tenure positions shown as available to your department in the six-year period (1975-76 through 1980-81) are firm in the sense that if you don't use them they do not disappear; they remain available to your department for use in a later year. The number shown as the rate for the ten years beyond the six are not firm.

In considering non-tenured faculty for tenure positions, it is of utmost importance that you plan ahead and think not only of those whose tenure decisions come up this year but also of all those who are in effect somewhat linked to the same tenure openings, that is those in the 5th year and even in the 4th.

I do not want to close this memorandum without repeating a sentence from last year's memorandum and reaffirming its intent. Last year we said, "Also, we are determined to reserve enough flexibility to make room in the tenure ranks for the absolutely outstanding individual, whatever the short term constraints."

If you have any questions, please call.

AL:jtg

Appendix II - 4

Princeton University: DEPARTMENT

INTER-OFFICE CORRESPONDENCE

To Chairmen of Departments and
Directors of Programs

Date September 30, 1975

Subject Tenure Flow Revisions

From Aaron Lemonick

The tenure flow plan, which is now in its third year, was first announced in a memorandum dated October 19, 1973, entitled "Planning in the Face of a Slowed Rate of Growth and Decreased Turnover in the Faculty." (A copy of that memorandum can be found in the Chairman's book issued by this office.) From all we can tell, the need to control tenure flow is no less with us this year, and from all indications, especially in view of possible decreases in the size of the faculty, the need will persist into the ten to fifteen years ahead.

In 1973, along with the memorandum of October 19, was another which gave, for each department respectively, the number of tenure openings available to the department in the three-year period 1974-75 through 1976-77, in the three years 1977-78 through 1979-80, and in the ten years beyond. In that memorandum we stated our intention to consider revision of these numbers every year if the situation in a department changed. We have found that in each year the situation does indeed change in some departments. There are appointments or promotions to tenure and there are resignations or deaths. (Retirements are not considered to be changed situations since they were already taken into account in the original assignment of tenure position.) Furthermore, in some cases, tenure positions which last year were projected in the "ten years beyond the next six years" have, with the passage of a year, become part of the complement of tenure positions for this year's "next six years." For all these reasons we have felt that an annual revision makes the best sense.

I am writing to you now to tell you the number of tenure openings which will be available to your department in the next six years, and by a much less certain projection, the rate of new tenure positions in the ten years beyond that.

The number of new tenure appointments available to your department in the three years, 1976-77 through 1978-79 is:

____

____

The number of new tenure appointments available to your department in the six years, 1976-77 through 1981-82 is (this number includes the number above):

____

____

To the best of our ability to project the long-range rate of new tenure appointments in your department in the ten years beyond the six above (that is 1982-83 through 1991-1992) is:

____

____

Please note that only the tenure openings shown as available to your department in the three-year period (1976-77 through 1978-79) are available in that three-year period. Tenure openings listed as available in the second three-year period (1979-80 through 1981-82) are not available for use in the first three-year period except under the most unusual circumstances.

Also note that the tenure positions shown as available to your department in the six-year period (1976-77 through 1981-1982) are firm in the sense that if you don't use them they do not disappear; they remain available to your department for use in a later year. The number shown as the rate for the ten years beyond the six is not firm.

In considering non-tenured faculty for tenure positions, it is of utmost importance that you plan ahead and think not only of those whose tenure decisions come up this year, but also of all those who are in effect somewhat linked to the same tenure openings, that is those in the fifth year and even in the fourth.

I do not want to close this memorandum without repeating a sentence from last year's memorandum and reaffirming its intent. Last year we said, "Also, we are determined to reserve enough flexibility to make room in the tenure ranks for the absolutely outstanding individual, whatever the short term constraints."

If you have any questions, please call.

AL:bjb

Princeton University: **DEPARTMENT** Dean of the Faculty

To Chairmen of Departments and
Directors of Programs

DATE September 15, 1976

SUBJECT Tenure Flow Revisions

FROM Aaron Lemonick

DEPARTMENT:

INTER-OFFICE CORRESPONDENCE

I am writing at this time, as has been the practice in each of the past three years, to make this year's annual revision in your Department's tenure flow plan. These annual revisions, which were contemplated in the original statement of the plan are needed to keep abreast of the continual changes in the composition of the Faculty due to appointments or promotions to tenure, resignations, and deaths. Retirements were already taken into account when the plan was originally laid out.

In what follows I have listed the number of tenure openings which will be available to your Department in the next three years, the next six years, and by a much less certain projection, the rate of new tenure positions in the ten years beyond that.

The number of new tenure appointments available to your Department in the three years, 1977-78 through 1979-80 is:

____

The number of new tenure appointments available to your Department in the six years, 1977-78 through 1982-83 is (this number includes the number above):

____

To the best of our ability to project, the long-range rate of new tenure appointments in your Department in the ten years beyond the six above (that is, 1983-84 through 1992-93) is:

____

APPENDIX II - 6

The histograms and graphs in this appendix were constructed by the Dean of the Faculty to portray projected trends in retirements at Princeton in the period from 1978-79 to 2003-04.

Figure II - 6a is a histogram showing the number of expected retirements from the tenured faculty at the end of each year during that period. The number of tenured faculty now 40 and over who would retire during these 25 years if the mandatory retirement age were to remain unchanged is indicated by the vertical bars. The wavy lines show the number of retirements that would occur if, starting in June 1983 (when the federal government-mandated minimum retirement age of 70 goes into effect), all tenured faculty were to retire at age 70.

The second histogram, Figure II - 6b, is based on the same data as the first, but it is gathered into five year periods -- 1978-79 through 1982-83, 1983-84 through 1987-88, and so on. The wavy lines, as before, indicate the number of retirements that would occur with the age 70 limit in effect.

Figure II - 6c is a graph showing the cumulative number of retirements over the same period under three different assumptions: (1) that the age distribution of Princeton's tenured faculty is uniform (11 faculty members will retire each year); (2) that Princeton's present faculty, with its actual age distribution, retires under the present 65/68 retirement rules; and (3) that the University's present faculty retires under the 70-year retirement age.

The last figure in this appendix, Figure II - 6d, plots the "deficits" -- how many fewer retirements there would be beginning in 1978-79 than there would have been had there been 11 retirements per year -- for the 65/68 retirement age and for the 70 retirement age. Each of these curves is simply the difference between the two lower plots in the graph entitled Cumulative Retirements (Figure II - 6c) and the upper plot respectively. This figure also has a line showing the difference between these two deficits.

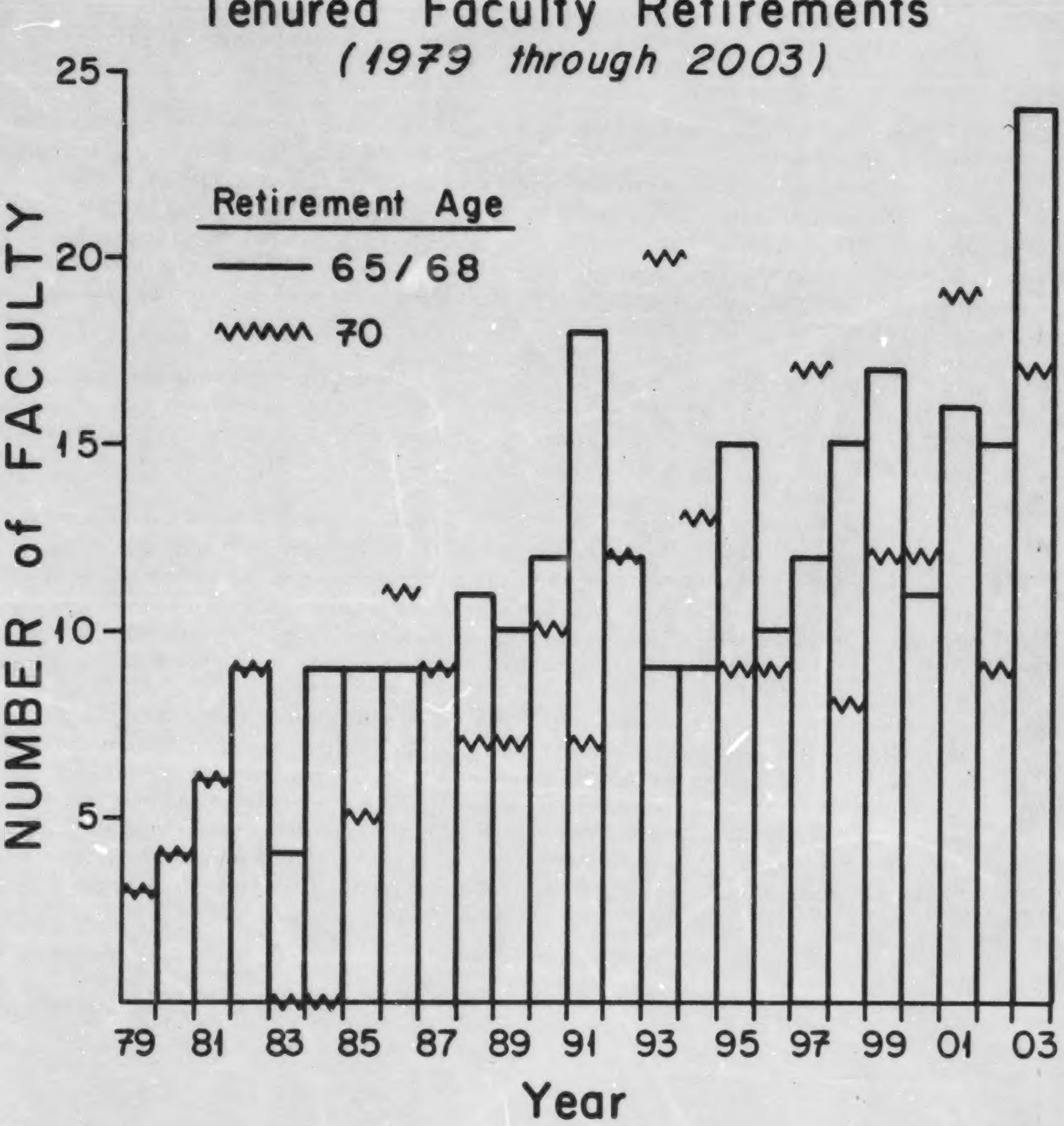

Tenured Faculty Retirements
(1979 through 2003)
Retirement Age
65/68
70
NUMBER of FACULTY
25
20
15
10
5
79
81
83
85
87
89
91
93
95
97
99
01
03
Year

Figure II - 6a

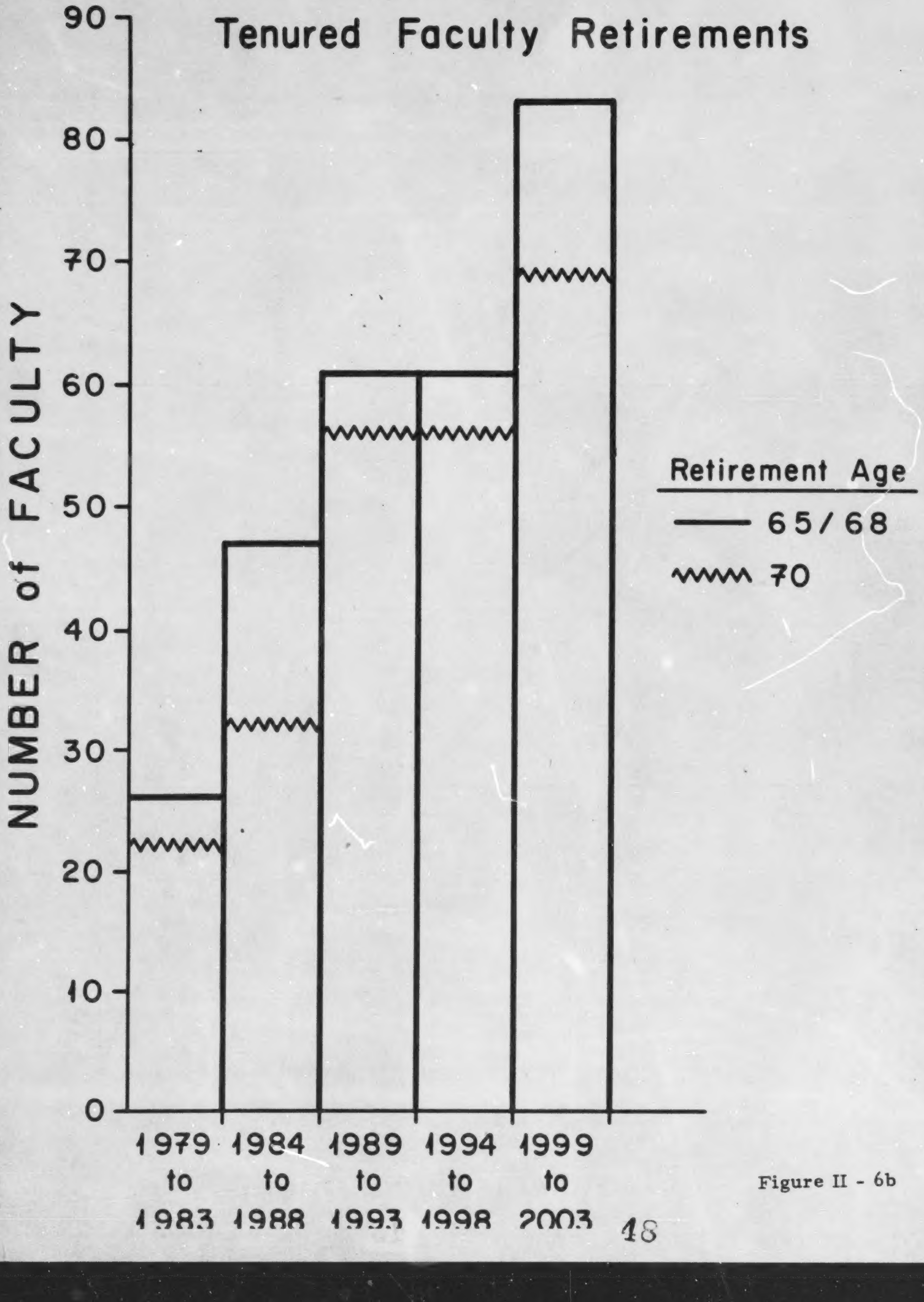

Tenured Faculty Retirements

Figure II - 6b

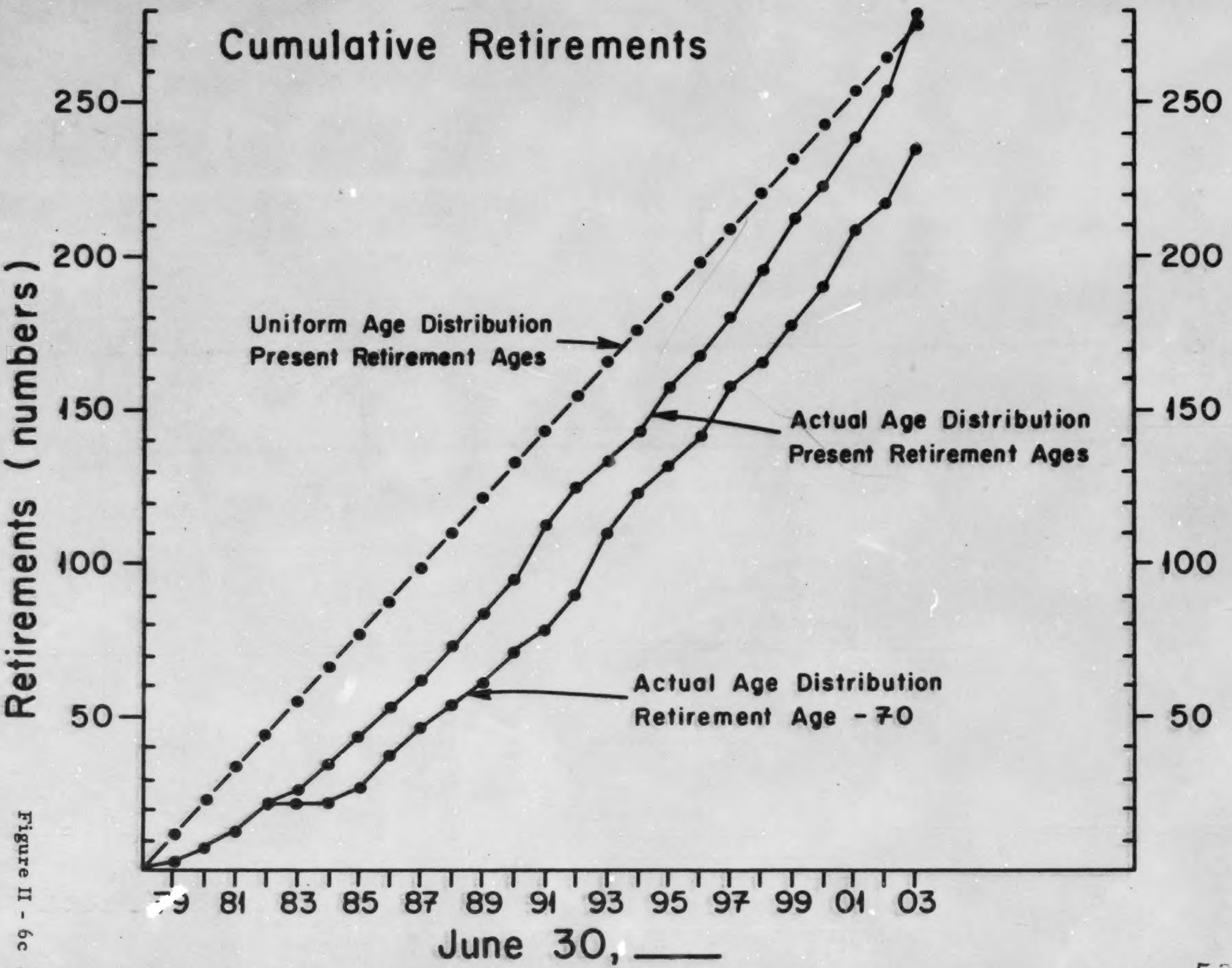

Cumulative Retirements
Uniform Age Distribution
Present Retirement Ages
Actual Age Distribution
Present Retirement Ages
Actual Age Distribution
Retirement Age - 70
Retirements (numbers)
250
200
150
100
50
79
81
83
85
87
89
91
93
95
97
99
01
03
June 30, ___

Figure II - 6c

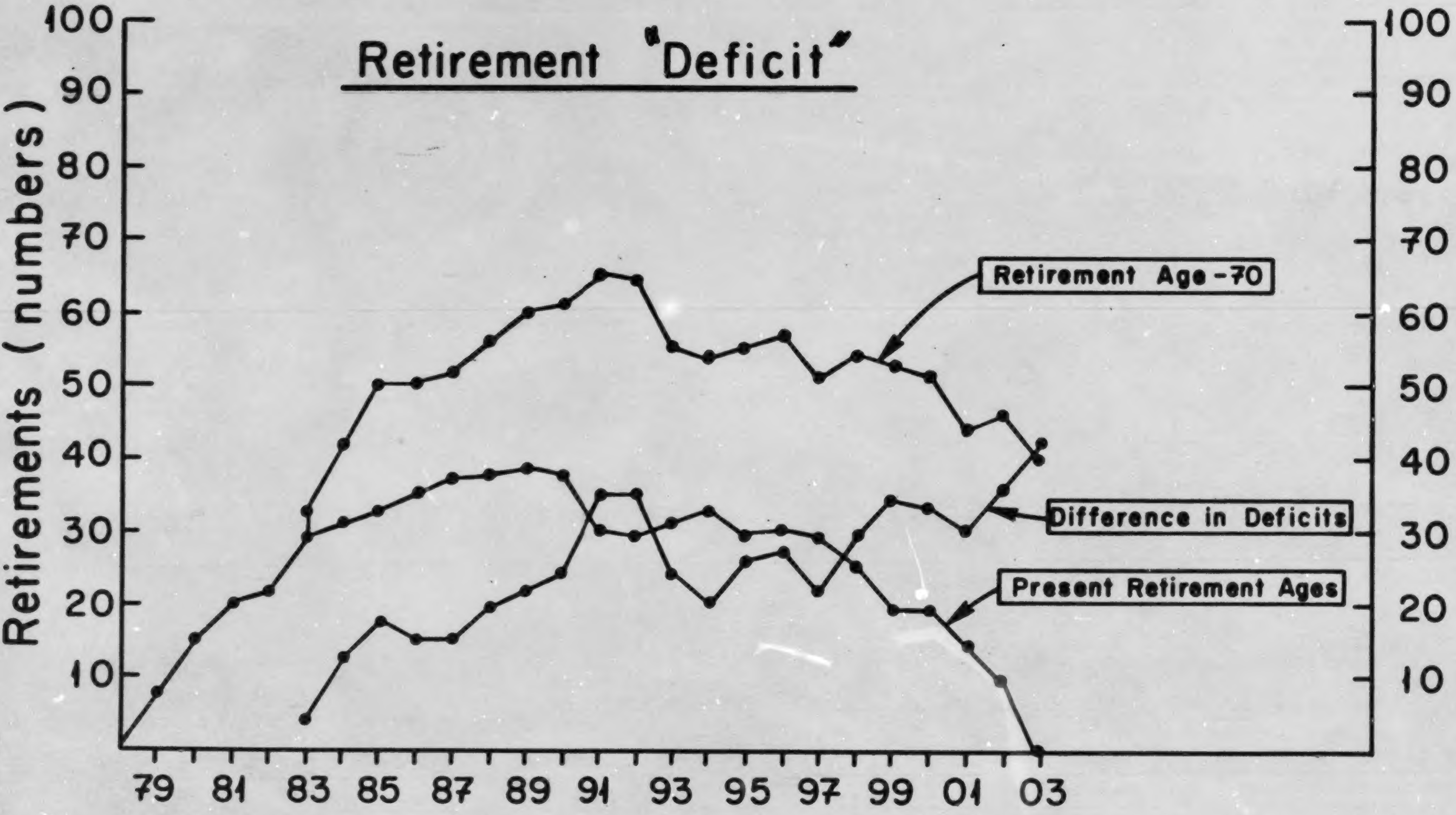

Retirement "Deficit"
Retirements (numbers)
100
90
80
70
60
50
40
30
20
10
79
81
83
85
87
89
91
93
95
97
99
01
03
Retirement Age -70
Difference in Deficits
Present Retirement Ages

Figure II - 6d

Appendix II - 7

The Tenure Process

Aaron Lemonick
Dean of the Faculty
Princeton University

Reprinted from the
Princeton Weekly Bulletin
23 February 1976

Our inability at Princeton to plan significant growth in the faculty over the coming 10 to 15 years, combined with a reduced rate of turnover in that period, will limit the number of tenure openings. It is of the utmost importance, however, to assure even under these conditions a continuing, regular flow of tenure appointments to the University and to the separate departments because of the vigor, the new ideas, the renewal of the fields that such flow brings. *PWB* invited Dean of the Faculty Aaron Lemonick to discuss the tenure process with us and with representatives of the campus press.
—The Editors

There are great debates about tenure. I think that they are almost beside the point. It's a system that if well used has great advantages, and if badly used has great disadvantages.

There are some school systems in which, if you teach in a satisfactory fashion for two years, you automatically get tenure, without anything else happening. In some places, it is three years. There are some colleges in which, once you've been appointed as an assistant professor, your chances of getting tenure are almost certain. I believe that that is precisely the way to get the worst results out of a tenure system. But there are other places, this being one among them, in which the move from non-tenure to tenure is an extremely serious one. In the process of making that decision, here and at other such places, one is forced to confront the question as to the person's probable long-range, say 30-year, growth and worth.

That is the kind of decision that no human being and no group of human beings can make perfectly. But you can do it with all the care and wisdom and loving attention of which you are capable.

The assistant professors who are brought to Princeton are carefully selected; they are the best young assistant professors we can get. There may be a mistake or two, but generally we choose rather well. Then, at the time of the tenure decision we are confronted with selecting the very best from among the assistant professors here or elsewhere.

Tenure was invented to protect a person's right to say what he or she felt they ought to say, as long as they are competent and are doing what they ought to be doing. This protects what they teach. It is hard to see how an academic institution could function without that protection for its faculty. Without it, the University could easily fall into a slow but sure ideological slide, and the way would be open for it to get rid of all the people who did not agree with it politically, or socially, or in any one of a number of other ways. The system is a protection for faculty in that it puts upon the administration the burden of proving that tenure ought to be discontinued, once it has been awarded, rather than the other way around which would be the case with a contract system.

If one weighs the tenure system functioning at its best, I claim that I can argue, and argue persuasively, that it is a good system and that it works; it has its faults, but so does every other system I can think of. But for an institution of this sort, it functions and it functions extremely well and makes us strong.

That is not to say that every single tenured professor, after having been chosen, continues to be a brilliant luminary. Some don't, it is certainly true. But if this system is compared with any other system of choosing people, I don't think ours would be found wanting. In other words, I think we have rather fewer people about whom there might be doubts later than with some other system. Part of the reason for this is the requirement, in this system, to confront the major decision at one specific point; to make the effort to gather all pertinent data and to confront it. If that is done well, even granting human fallacies, chances are the University will do well. It is that process, the process of deciding on granting tenure, I will talk about here.

In the normal course of events, the tenure decision occurs after a person has been here six years, after two three-year terms as assistant professor. We are at that point, by our own rules, forced to make the tenure decision. In some cases, we make the decision earlier; in some cases, later. If for a particular reason a person is not ready to be considered in six years . . . because the field is such that it requires more time, or for some set of valid circumstances this person has been unable to accomplish enough work that can be shown, then there is a provision in the Rules and Procedures for granting a one-year, two-year, or three-year extension. But normally, we are talking about two three-year terms as assistant professor and then, up, or out.

At the time of the decision, remember that we are dealing with a group of assistant professors who have been here and have been observed. How closely have they been observed? The students have been observing them in class. The chairman and the rest of the department have been observing, in the department. The department, or at least the people at the higher ranks of the department, have to prepare a statement, each year, on the salary increase recommendation. The statement deals with effectiveness as a teacher, and scholarship that year, and service to the University. And finally each year the Committee of Three, about which more will be said later, considers the salary increase recommendations and builds a record of its observations. In addition, these sets of people also deal with a reappointment recommendation at one point.

So you come up to the sixth year usually knowing a person moderately well. At least, you have been considering the person each year over that period. In the sixth year comes that climactic point at which all of the associate professors and full professors in the department decide whether or not this person ought to be recommended for promotion to tenure on the basis of the evidence before them.

This recommendation is considered in the light of a tenure flow plan; there isn't an unlimited number of places for tenure these days. The department also considers its needs for people in particular fields in both scholarship and teaching. But above all, it considers the quality of the assistant professor here and of assistant professors elsewhere with which he/she might be compared.

The department may recommend promotion, they may recommend against promotion, or they may recommend an extension. The recommendation for an extension is by the same process as a recommendation for or against tenure. All recommendations go forward with a completely filled-out three page form which asks, among other things, about the vote (unanimous or majority) of the professors and the associate professors in the department.

What else is on the form? There is *Evaluation as a Teacher:* effectiveness as a teacher of graduate and undergraduate students, including strong points and weaknesses; qualifications as a lecturer, classroom instructor, preceptor, supervisor of independent work in the laboratory; sources of information and basis for evaluation; and so on. (In addition to this, we have the student course evaluations, a record on every single person for as long as that person has been here.)

There is also a section about *Standing as a Scholar:* comparative standing; the field of special competence; significant contributions to the advancement of knowledge; originality; appraisal of his or her writing by scholars, including quotations or summaries from book reviews or similar comments; a bibliography; ways other than teaching or writing that his or her scholarship has been shown; promise of further growth and productivity as a scholar; and *Other Contributions* . . . that is, to the work of the department, the work of the University, committees, and boards of advisors.

Then there is required a list of at least five, and as many as 10 names of distinguished outside scholars who know the person's work. Such a list is contributed by two people. The person being considered for promotion to tenure is asked for his or her own list, which the department chairman forwards, and the department chairman is asked for a list. In addition, the department chairman is asked for a one- or two-sentence commentary on each person named on the list, such as the particular appropriateness of the scholar to make this evaluation. 'This specialist in so-and-so was the candidate's thesis advisor'; or, 'has been working in research with the candidate ever since,' etc.

These forms come forward to me with complete bibliographies, and I then write to a group of outside scholars. Sometimes this involves sending out a manuscript, which is not yet in press, to be evaluated. I write out and get back letters, on a confidential basis, from people selected from these lists and from my own list. That is, if I think the candidate's list and the chairman's list are fine, but they obviously left out a person who could give important testimony, then I write to that person as well.

When the letters come back, they go to that peculiar Princeton institution known as the Committee of Three, in which is practiced a very advanced form of faculty power and which has been around here for a long time. The Committee of Three is a committee of nine members, four of whom vote. The four who vote are: one faculty member, a chairman, elected at large each and every year, from each of the four divisions. For example, the social sciences member of the Committee of Three is elected each year by all, by the entire faculty; the engineers vote, the scientists vote, the humanists, vote, everybody votes. The whole faculty selects the four voting members each and every year.

To show the kind of trust this committee has enjoyed in the past, there are people who have served as long as nine years in a row, selected each and every year. There was one great year in which all four were reelected, except one, and that year the faculty elected the person who had succeeded that one as chairman of his department. I believe that the committee is trusted.

This committee then considers the recommendation together with all the material supplied, the entire file of the person recommended since the beginning of his or her time at Princeton, and the letters that have come in 'for their eyes only.' I have written out a neutral letter seeking information and I get back a letter with a careful, frank opinion on a confidential basis.

One other thing on the matter of teaching evaluations: I was finally convinced by some students that each spring I ought to run an ad in the *Prince*. I have. And I am prepared to run the same ad in the future saying that by the rules and procedures of the faculty, students have the right to have input into these decisions by sending me their comments or by sending the department their comments. Last year, I don't remember whether it was March or April, I ran the ad and the *Prince* ran a list of all the assistant professors in each of the years, and I'm prepared to run it again.

Students are invited, free form, to send in their comments. All letters I receive from the students are laid before the Committee of Three.

As to the teaching evaluations: I've got a record of every single teaching evaluation of every member of the faculty who is here now, for all the years that he or she has been here, for as long as we've had teaching evaluations. So the students do have this input. Graduate students write and undergraduates write. There was a suggestion by someone that I ought to write seniors who have just graduated to find out from them what they think of particular people. That may be a good idea, but it's awfully difficult to put into effect because we don't know enough addresses and I'm still considering it. But that's why the spring is so much better than fall; the seniors are still here.

The Committee of Three then meets, and works very hard at trying to decide whether the recommendations before it are always right for the University.

How important is this to the University? I've been dean of the faculty for three years. In each of those years, I've written a report for the president showing the gains to the tenured faculty in appointments from the outside and promotions from the inside; and the losses from death or resignation or retirement.

This is the process by which the faculty of the future is made. On the one side, there are resignations, and retirements and deaths. On the other side, there are appointments from the outside and promotions from the inside.

When you do that . . . when you take one year's list, and then the next year's list, and another year's list . . . you get a very strong sense of striking a balance whether, in fact, the university has been improved that year, or whether it hasn't. You also get a very strong sense that it doesn't take long to 'tip' a faculty. If the balance is bad for 35 years in a row, there's just no question . . . you're on your way down, or out, or wherever you're going.

It would take much less time to 'tip' a department than a whole faculty. That is, if you have three or four or five bad years, and all those people become voting members of the faculty, voting on their successors . . . the people they're going to bring in . . . it would take much less time to 'tip' the department. And I'll bet ten years could 'tip' a university.

I speak about this as if it were a possibility. I hope it isn't. I think it is not a possibility, because each of the decisions is made with such great solemnity, with great difficulty, with great care by the Committee of Three. By the way, the five non-voting members, who can talk but not vote, are the president, the dean of the faculty, the dean of the Graduate School, and the dean of the college.

After everybody has had his or her say, then it all stops. The president then asks the four voting members, the faculty members of the committee, 'What do you think?' They are the ones who then recommend to him, and he then recommends to the board. And that is the process.

Now, I want to say a tiny bit about the statistics, about which more will be said in April. In 1974-75, the gains to the tenure ranks were 12, and the losses were 14. The gains consisted of four appointments from the outside, eight promotions from the inside. The losses were: five resignations, two deaths, six retirements, and one transfer to inactive status due to disability. That *was* the balance sheet in that year. This year, that is 1975-76, there were 21 gains and 15 losses. The gains came about like this: eight new appointments from the outside, 11 promotions from within, and two moving to continuing tenure, a lecturer and an associate professor. As for losses, we had 15: nine by resignation, six by retirement.

There are other statistics that may be interesting to you, though I think they will be much more interesting in April after this year's results are in. In 1973-74, we had nine recommendations for promotion. In 1974-75, there were 11 recommendations. And this year, there are 17 recommendations for promotion.

The reason that there are more has something to do with the fact that assistant professors now stay in Princeton the whole six years and don't go to jobs elsewhere. It used to be that we would start with a class of assistant professors, and then we would watch the class shrink as people accepted jobs offered them elsewhere and left, or were promoted here. Now, more of them stay the whole six years and then are ready to be considered for promotion.

There is a famous paragraph in the *Rules and Procedures of the Faculty of Princeton University*, paragraph III, C. 1., which states very carefully how it is all accomplished. It starts out with the sentence: 'All proposals for appointment, reappointment, or advancement in rank or salary shall be made in writing by the chairman of the department concerned and sent to the dean of the faculty for transmission to the president.' It goes on to tell who shall be consulted, etc., and it also says that all recommendations go to the Committee of Three. That is the *only* way to be promoted here; there is no other way. The department recommends, the Committee of Three advises the president who recommends to the board.

III. REDUCING ADMINISTRATIVE EXPENSES IN ACADEMIC DEPARTMENTS

In January 1975, the Priorities Committee reported a significant worsening of the University's financial position. It predicted that the year then underway (the fiscal year 1974-75) would show an operating deficit of approximately $1.5 million and, despite a number of stringent actions which included large budget cuts in several areas and significant increases in student charges, it expected that deficit to rise slightly the following year. In a somber assessment of the situation, the Committee warned the University community that "the University is faced with a basic readjustment in its standard of living amounting to something on the order of two million dollars." The Committee then recommended a number of specific cuts for 1975-76, and identified several expenditure categories which it felt warranted a closer inspection.

One of the categories the Committee marked for special attention was something that has come to be called departmental administration -- the supporting staff and operating expenses in the academic departments and programs. Although these expenditures are especially difficult to review since departments have such widely different needs for supporting staff and other kinds of support, the University was facing a deficit of almost two million dollars and the Committee had identified departmental administration as "one of the fastest growing areas of the University." A special review by the Dean of the Faculty and the University Treasurer was begun with the hope that substantial savings would be achieved in this area over the next few years.

As the Committee indicated, departmental administration had grown faster than the University budget as a whole up through 1975. Between 1969-70 and 1974-75 these expenditures grew from approximately $3 million to approximately $5 million, an increase of 67%; over the same period the overall University budget (excluding the Princeton-Pennsylvania Accelerator and the Plasma Physics Laboratory, two very large sponsored research projects) grew by only 31 %, and expenditures for total faculty salaries and benefits grew by only 35%. Clearly, some special review was warranted.

But, as the Committee was quick to point out, trying to review -- and control -- the administrative expenses of academic departments raised a number of very difficult problems. First of all, there are almost forty academic departments and programs at Princeton which have separate administrative budgets financed by general University funds. Although, in general terms anyway, those forty budgets are all designed to support the same basic activities of faculty and students -- i.e., instruction and research -- each department has its own particular problems and perspectives. Everyone agrees that it is important to establish some kind of equity among departments in the setting of administrative budgets. But how do you define "equity" when you are comparing, on the one hand, a physics department with more than thirty faculty members, sponsored research of approximately $2 million, and a large graduate and undergraduate enrollment principally in laboratory courses and, on the other hand, a religion department with ten faculty, no laboratory courses or sponsored research, and a much smaller enrollment? No one would argue that these two departments should receive the same dollar amount for administrative expenses, but how much of a difference is justified, and for what reasons?

A second problem that quickly arises when one attempts to review the administrative budgets of academic departments is that no single person in the central administration is responsible for these budgets, at least not directly. In every case the department chairman is a senior member of the faculty, and departments are understandably inclined to resist intrusions on their prerogatives by the central administration. Faculty argue -- with considerable validity -- that only they can understand the real needs for staff and other kinds of support in their department. No one person in the central administration is close enough to all the academic departments and programs to be able to judge their different needs precisely.

Because of these and other problems, administrative budgets in academic departments had received only occasional reviews prior to 1975. Generally, the budgets for operating expenses were reviewed only as departments requested special increases, and those requests were handled on an _ad hoc_ basis: if there was some flexibility in the overall University budget and if the department made a persuasive case for more money, an increase was authorized; if the budget was tight or if there appeared to be some other way to solve the department's problems, it was turned down. In some years, when the budget was particularly tight, all departments were asked to sacrifice somewhat by "absorbing" some part of the expected inflationary increases in costs, i. e., accept an increase in the budget less the rate of inflation. Even here, however, there was no attempt to identify departments whose needs were changing -- either up or down -- and single them out for special attention. In effect, then, this system of budgeting took the historical pattern of expenditures as a given. Marginal changes were then made, either across the board or when special requests were made by individual departments, based on this historical pattern.

The supporting staffs in academic departments were reviewed in much the same way. Requests for increases were submitted to the Personnel Office. The Vice President for Administrative Affairs generally reviewed these requests and, in most cases, discussed them with the Provost, the Dean of the Faculty, and the Financial Vice President and Treasurer. If all of these people agreed that the increase was necessary, an additional position was authorized and the Personnel Office met with the department chairman or administrator to work out the details of the job classification and salary. Again, actual reductions in staff were considered only in those very rare instances in which a department's activities were reduced so dramatically that it was obvious that fewer supporting staff were required.

The asymmetry in this process is obvious: when a department's activities increase, the department requests special increases in staff and operating expenses; when those activities decline, however, there is no mechanism to insure that these administrative expenses are reviewed and, if possible, reduced. Thus, trying to control budgets for departmental administration by reviewing requests for changes produces an upward pressure on the overall University budget, without anything to balance it on the downside. Although this system may have had little negative impact in the 1960s and early 1970s, when nearly all academic departments were growing, today, when most are in a steady state and some are actually shrinking, it does not make sense. In fact, this system of reviewing departmental budgets was undoubtedly one of the primary reasons that departmental administration has grown so much faster than other parts of the budget.

At the urging of the Priorities Committee, the Dean of the Faculty and the University Treasurer began an intensive review of these budgets in the spring of 1975. To assist in that effort, they recruited the Vice President for Administrative Affairs, the Director of Personnel Services, the Controller, and the Assistant Provost for Resource Allocation. That group, with many other people helping, worked intensively over the spring and summer to develop a systematic way of determing departmental budgets.

During the deliberations of this group, three general principles were developed and adopted:

1) Departmental budgets should be responsive to changes in the depart-

ment's basic activities in instruction and research. That flexibility ought to be symmetric -- i.e., budgets ought to go down as well as up -- and reasonably automatic, so that departments did not have to request changes in their budgets (and endure a long ad hoc review process) every time the level of activity changed.

2) Departments should be able to decide for themselves how they want to spend the monies available for departmental support. Rather than having to make separate requests for supporting staff and all of the different operating expense categories, they ought to receive just one budget for all these things. Since a department itself is clearly in a better position than the central administration to understand the department's priorities, they ought to be the ones to decide whether they really need an additional secretary or more money for supplies.

3) There ought to be some incentive for departments to manage their budgets effectively and to save money whenever possible. This principle was actually implemented by a process which returns to departments any savings they can achieve. In addition to allowing each department to benefit directly from its own economies, this policy also provides the more frugal departments with some flexible money, which they can use to support specific research or teaching needs if those are thought to be more important than additional administrative support. Furthermore, this system is symmetrical in that departments which overspend their budgets are required to make up the difference out of departmental restricted

funds whenever such funds exist.

These general principles were arrived at quite early in our review process, and they still govern the budgeting process that is in effect today. The principles do not, of course, tell us how to review the individual departmental budgets and how to set specific dollar limits. A systematic approach to the actual mechanics of the budget review was needed and, therefore, very early in the process, the review group began to look at individual departmental budgets.

Those early reviews relied heavily on two sources of information: a Controller's Office analysis of different categories of operating expenditures; and interviews with members of the Personnel Office who work with the departments on all non-faculty staffing matters. In the Controller's Office study, operating expenses were broken into several categories -- materials and supplies, purchased services, postage and shipping, telephone charges, travel allowances, printing charges, and food services. The actual expenditures in each of these categories were calculated, and then divided by the number of full-time-equivalent faculty members (FTE's) in the department. The expenditures per FTE were then compared with the average expenditure for the entire academic division (Humanities, Social Sciences, Natural Sciences, and Engineering and Applied Sciences). This technique enabled us to determine if a particular department was spending more or less than other comparable departments on each expenditure category. Based on this information, we were able to obtain a general sense of the relative positions of the different departments.

A similar effort was made to compare the number of supporting staff members per faculty FTE. These figures were then reviewed with the members of the Personnel Office staff who worked most closely with the departments. Again, the calculations and the interviews provided us with some sense of which departments were really tight, and which were relatively well off.

There are two problems with this kind of analysis. First, comparing expenditures per FTE ignores many very real differences among departments. Clearly departments are different in some respects other than the number of faculty, and some of those differences significantly affect their needs for supporting staff and operating expenses. A laboratory science is inherently more expensive to support than a literature department, as long as the department is not charged directly for such things as the cost of maintaining the University Library. Moreover, even within an academic division significant differences can exist. In the sciences, for example, departments can have very different levels of sponsored research, and this clearly affects their needs for such things as administrative and secretarial staff, telephones, etc. (The cost of these kinds of administrative expenses are not charged directly to research grants at Princeton. Instead they are paid for out of general funds and charged to individual research projects through the indirect cost rate.)

A second problem with this type of analysis is that it does not provide any convenient method of combining the different cost categories. It may be that Department X is spending more per FTE on materials and supplies than Department Y, but less on telephones (or secretaries or travel or whatever). How could these categories be grouped in some meaningful way, without simply allocating every department the same number of dollars per FTE?

At this point we decided that we had to stop looking simply at expenditures per FTE and instead adopt a multi-dimensional approach. After a few abortive attempts at trying to compute single measures of departmental activities, we turned to a multiple regression analysis of departmental spending. We took several years of data and ran a series of multiple regressions in which departmental spending was the dependent variable and different measures of departmental activities were used as the independent variables. In effect we were attempting to use the regression analysis to "explain" the differences in spending across departments by the differences in "activity" within those departments. In theory, this would enable us to identify those departments which were spending more per unit of "activity" than the average, and those that were spending less. It would also give us a measure of how much that spending could be expected to increase or decrease as the level of activity in the department changed.

For the purposes of this regression, we defined departmental "activity" as instruction and research, and then tried to develop quantitative measures of those activities. Several measures were investigated in the early stages of this process: the number of students in the department (i. e., graduate students and undergraduate majors); the number of course enrollments; the number of faculty, either full-time-equivalents or simply numbers of people; the amount of money spent on sponsored research; the number of research grants or contracts. All of these variables -- and various combinations of them -- were included in our preliminary regressions. In the end the two variables that seemed to be able to explain the expenditure differences the best were (1) the number of faculty FTE's on the teaching budget of the department, and (2) the amount of money charged directly to sponsored research grants and contracts.

It was reassuring to note that these two variables also made the most sense to us intuitively. It is clear that these variables are direct measures of the basic teaching and research activities of the department. The number of FTE's on the teaching budget is determined, at least in part, on the basis of overall teaching needs within a department, including such things as majors and course enrollments. (Besides, it is generally the faculty who are supported out of these administrative budgets rather than the students: a faculty member advising one senior and teaching a class with ten students still needs a telephone and probably requires almost as much secretarial support as someone else who advises ten students and teaches two courses with a hundred students each.) The amount of money spent on direct costs from sponsored research funds seems to be the best measure of the level of organized research activity in a department. In general, the more money a project is spending on research staff, supplies, equipment, etc., the more support they need from the department.

The results of this final regression were then used as a standard for comparing different departments, in effect normalizing expenditures based on differences in teaching and research activities. As might be expected, some departments were spending more than this standard and others were spending less. (By the very nature of an ordinary least-squares regression, it is impossible for all units to be either above or below the regression line -- or in this case plane; furthermore, it would have been very surprising if we had found that every department was spending exactly the amount predicted by the regression result.) We were encouraged to note that there did not seem to be any major differences between academic divisions or by any other logical grouping of departments. Science departments, for example, ended up on both sides of the regression results, rather than being lumped together as over- (or under-) spenders. This fact implied that the differences in spending patterns -- i.e., the amounts by which actual spending differed from the regression results -- were the result either of historical accident or of some basic differences unique to specific departments, not the result of an inherent bias in the regression results that discriminated for and against certain categories of departments.

All of the information we had been able to gather about individual departments was then reviewed in the context of this standard. The actual number of FTE's on the teaching budget in 1974-75 and the direct charges to sponsored research were calculated for each department. These numbers were then used to compute the expected budget based on the regression results.* Departments in which actual spending departed more than 10% from the standard -- in either direction -- were then reviewed in detail.

In several cases, there were reasonable explanations for the difference between actual spending and the formula result. In the Department of Art and Archaeology, for example, a significant fraction of the administrative budget is devoted to the maintenance of a large slide collection. This slide collection is a basic tool of the teaching and research functions of the Department, and it is essential that it be maintained properly. The Art and Archeology Department is certainly not unique in needing particular tools of this kind, but in most departments the cost of maintaining such assets is borne by a central administrative organization such as the Library or the Computer Center. In the few places where those kinds of costs were borne by the departments themselves, there had to be some adjustment in the budgets for departmental administration.

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* This expected or standard budget has come to be known, not always affectionately, as "the formula" on the Princeton campus. It provides just over $3000 (in 1975-76 dollars) for each FTE and $.22 for every dollar of direct costs charged to sponsored research. For very large departments, these parameters are reduced to $2000 for every FTE over a certain number and $.20 for sponsored research over a certain amount.

Even after explicitly taking into account these special circumstances, expenditure levels in many departments differed significantly from the formula. From those departments where spending was still more than 10% over the formula, we asked for a reduction in this budget. In general, we did not reduce the budget all the way back to the level of the formula, for two reasons. First, it is clear that some fields of study simply cost more to support than others, and those differences are not always reflected in the number of FTE's and the amount of sponsored research. Part of the difference between a department's actual spending and what our formula indicates they should be spending probably reflects a real difference in needs, therefore, and not simply an historical accident. Second, even if one could be absolutely certain that the formula amount was somehow the most equitable and correct amount to budget, it was simply not realistic to expect departments to make adjustments of the kind that would have been required, at least not over a short period of time. If we had followed the formula exactly for every department, some departments would have seen their budgets cut in half -- and some would have had them doubled. For both these reasons, then, we moved only part of the way toward the formula: in most cases we asked for a cut -- or granted an increase -- of approximately one-third the distance between actual expenditures for 1974-75 and the formula. Even with these modifications, however, many departments were faced with major adjustments in their budgets: eight departments were asked to implement budget cuts ranging from $20,000 to $60,000, for a total cut of approximately $200,000; on the other hand, one department actually received a budget increase of $50,000, and several other departments received increases in the $10,000 range.

It should be clear by now that this process of developing a University-wide standard and moving departmental budgets toward it will not in and of itself result in any reduction in the overall expenditures for departmental administration. By the very definition of an average, the amount by which some departments exceed the average is exactly equal to the amount by which other departments fall below the average. Redistributing funds from one set of departments to another may increase interdepartmental equity, but it will not save the University as a whole any money.

Since our basic objective in 1975 when we began this review was to reduce the budget, this redistribution of funds among departments had to be accompanied by some other, more direct cost-cutting action. The action we took in 1975 was, in effect, to ask every department to absorb one full year's worth of inflation. The increases we provided for departments that were below the formula were somewhat less than they appeared, therefore, because there were no special increases to cover pay raises for staff and other increases in costs due to inflation. Likewise, departments whose spending levels were reasonably close to the formula did not have their budgets reduced in terms of absolute dollars, but they too had to absorb those same cost increases out of that fixed budget. And even those departments asked to make absolute cuts had to absorb a year of inflation, over and above the reduction that was explicitly asked of them.

It would have been possible, of course, to save the same amount of money by simply requiring each department to absorb a year's worth of inflation, without making any special adjustments or redistributing any of the money. However, we did not feel that an across-the-board cut of that kind was appropriate. Unless we could find a way to be reasonably sure that the reductions would come most heavily in those departments which could best afford them, we felt that cuts of that magnitude would have very harmful effects. In order to minimize the substantive damage to departments -- and to maximize their confidence in the basic fairness of the whole process -- we felt that a cut of this magnitude had to be preceded by a more equitable system of distributing the available resources.*

This process of reviewing departmental spending patterns and comparing them to a University standard or formula has been continued in the years since 1975. Although we have not attempted another major redistribution of the kind implemented in 1975, we have been trying to move departments very gradually toward the University-wide standard, based on their sponsored research and FTE levels. Each year the first step in the process is to look at the department's teaching and research levels to see how much of a change, if any, has occurred over the last year. The standard or formula budget is then recomputed for each department, and compared to the same figure for the previous year. Adjustments are made in the budgets for the following year based on (1) the difference between the current budget for the department and the formula, and (2) the change in the budget that can be justified by the change in the levels of teaching and research (i.e., the change in the formula amount). If we increase those departments that are below the formula and experiencing increased activity, reduce those that are already above the formula and declining in activity, and hold everyone else constant, over time the actual budgeted amounts will gradually move closer to the levels called for by the formula.

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* Some of the actual memoranda used to describe this process to department chairmen are included in the appendixes of this chapter, including the general memorandum sent to all chairmen in the fall of 1975, plus samples of the follow-up memos indicating specific budget limits -- one showing a budget cut, one an increase, and one no change. In addition, copies of more recent memoranda are included to give some sense of how this process has worked in subsequent years.

Although some exceptions will always be necessary to this general rule, we feel that we are moving in the right direction. The mechanical process we have implemented is, of course, far from perfect, and we are constantly having to make ad hoc adjustments based on what we perceive to be special circumstances. Still, for the first time, we feel that we have a reasonable standard to use when we are reviewing budgets and when we are making ad hoc adjustments. It is fairly clear that the presence of such a standard has enabled us to control costs in this area in a way that would not otherwise have been possible. Furthermore, the use of this system has significantly increased our confidence, and that of the departments as well (we think), in the judgments we do have to make.

Appendix III - 1

Princeton University: Department

To Chairmen of Academic Departments

Date October 9, 1975

Subject Department Operating Budgets, 1975-1976

From Aaron Lemonick
Carl W. Schafer

You are all aware that a sizable gap has appeared, and persists, between the University's income and its expenses. This gap appears not to be due to transient causes, but will apparently continue to grow with severe and unfavorable consequences unless we take the strong measures necessary to bring the budget back into balance in an orderly way. You will know from the Priorities Committee Report of last January that the Committee considered and recommended budget reductions in all facets of the University's operations, and that some sizable reductions had already been achieved. In addition, the Committee and the Administration continued to work through the spring, with the result that still more savings have been achieved.

Some of the areas where major cuts have already been made (which does not thereby exempt them from further review) are Physical Plant, Dormitory and Food Services, and various administrative offices. Some of the cuts have been truly painful, and have resulted in reduced services. In each case, the cuts were made after a careful review. In making these judgments, and the ones yet before us, we are making every effort to do so with equity and proper University priorities in mind.

We are writing to you now about an area which the two of us are charged with examining, and with cutting where possible. The area is that of departmental administration (the supporting staff and operating expenses of academic departments and programs charged to general funds). This has been one of the fastest growing segments of the University budget over the past several years. In fact, as reported in the University Research Board's recent study of indirect costs (distributed to you earlier), the departmental administration component of the indirect cost rate grew by nearly 20 percentage points between 1970 and 1974 while the combined categories of central academic and general administration actually declined slightly during the same period. Moreover, in absolute terms, departmental administration costs doubled in the seven years ending in 1974, while the teaching and research budgets were increasing by only 40 percent. The two of us, with the able help of Dick Spies of the Provost's Office and others, have, during the summer, been reviewing these departmental operating budgets in detail. Our aim, in whatever we do, is not only to achieve savings, which we must, but also to try to effect a more equitable distribution of resources.

Chairmen of
Academic Departments

October 9, 1975

In looking at the question of equitable distribution of resources among departments, we took as rough measures of a department's need for operating funds the departmental teaching budget (reflecting as it does, however roughly, enrollments, majors, and graduate students) and the sponsored research activity of the department. The latter was meant to reflect the major non-instructional source of demands on the departmental operating and administrative budget (for which, in fact, the University is reimbursed by the sponsor through the indirect cost rate). When we were through, we found: some departments have far larger general funds operating budgets than the summed effect of these two measures would seem to call for; that there is a broad middle group of departments (in all divisions) which seem reasonably comparable in their operating budgets according to these measures; and that some departments are getting less than they seem to merit by these same measures. Each of the four academic divisions has examples of each of these groups and no group comes predominantly from only one division.

Some of the differences may be due to differences in operating styles and expectations in the departments. Others may reflect needs which are not measured by teaching budgets or sponsored research activities. These estimates seem to us, however, a good place to start.

Our objective, therefore, is twofold: to reduce the size of the total University budget for departmental administration and to correct major inequities in the allocation of those funds among departments. We realize that these objectives cannot be completely accomplished in one year; in particular, we will take fully into account the fact that this and following memoranda are reaching you well after the beginning of the fiscal year, and that many commitments for this year have already been made. Moreover, the budgets of some departments will have to be cut significantly and it will take time for them to make the necessary adjustments. We do, however, have to make a start. We have, therefore, put each department into one of the three categories described above. This year, for those in the broad middle, the operating budgets for the current year have been set at last year's actual levels (thus requiring that pay raises and other cost increases be offset by savings elsewhere). For all the rest we have set new budgets incorporating such cuts or additions as seem indicated to us. These budgets will, of course, all be reviewed again for 1976-77, and for the years beyond, since we also recognize that factors will change from year to year. Within the next few days, we will be sending each of you a separate note which will indicate our judgment as to what the 1975-76 budget for your department should be. We would then be happy to meet with any of you who might wish to discuss these numbers further.

We have had numerous suggestions from chairmen, especially at this time when chairmen and departments are asked to help cut costs, that we allow more flexibility in the use of funds so that a department may use its own judgment to tailor the use of these funds to the needs of the department. We are convinced that this makes good sense. We are also convinced that departments which effect savings ought to share in the use of those savings. To meet these two desirable ends we are proposing the following:

1. That within the operating budget, department chairmen and departments have the flexibility to decide how to allocate their budgets among the expenses of operating a department (supplies, administrative and clerical personnel, telephones, etc.).

2. That as an experiment for two years (1975-76 and 1976-77) general funds operating budgets not used by June 30 of any one fiscal year go into a special departmentally-restricted (2000 series) account which would be available for use by the department at its discretion, consistent with University policy, in subsequent years. We are attempting by this means to give the department more control over its own affairs.

3. In addition, in order to more fully -- and more quickly -- recognize the changing needs of departments, the allocation of funds for supporting staff and operating expenses will, in the future, be more closely tied to both teaching budgets and sponsored research levels. In particular, we will try to look more closely at the actual levels of teaching budgets and sponsored research in making up these budgets; any major change in these activities in a given year (either up or down) will be reflected more or less automatically in the operating budget for the following year. As described in number 1 above, departments will be free to decide for themselves how they want to allocate those increases or decreases between supporting staff and other operating expenses.

Finally, and at the risk of belaboring the obvious, we would like to stress the importance of saving as much money as we can in administrative expenses of this sort. To the extent we are successful, it will not be necessary to cut as much as we otherwise would have to in much more important areas -- such as the size of the faculty or in salary increases.

Princeton University: DEPARTMENT

To Chairman, Department X

DATE October 20, 1975

SUBJECT Department Operating Budget, 1975-1976

FROM Aaron Lemonick
Carl W. Schafer

INTER-OFFICE CORRESPONDENCE

In our general memorandum to Chairmen of Academic Departments of October 9, 1975, we indicated that we would be sending a separate note to each department indicating our specific judgments on the 1975-76 budget.

Since your Department's operating budget seems considerably larger than the summed effects of your teaching and research programs would seem to call for (when compared with other departments measured along these same two dimensions), we ask that you examine ways and means of achieving a reduction of $20,000 from the operating level of the past year.

If fully implemented this year, this reduction would require your department to operate with a budget of $236,210 for non-faculty salaries and benefits, and operating expenses (other than computer charges) on general funds. As we stated in our earlier memorandum, you are free to allocate these funds pretty much as you see fit, i.e. you can increase your operating expense budget by reducing supporting staff (or vice versa). We should hasten to point out that we know this full reduction could not be achieved in a single year without significant disruption of departmental activities, especially since we are already well into the fiscal year. Nevertheless, we believe that the department should move promptly to identify reductions which would be sufficient to operate at the reduced level -- phased in over a period of time if this seems necessary. We assure you that most departments will have a decrease in "real" dollars in operating funds this year.

If you have questions as to the interpretation of these figures, please feel free to consult Assistant Controller Chris McCrudden on extension 2-3294. We also urge you to be in touch with your regional representative in the Personnel Office so that he or she may assist you in matters of staffing. If there are any factors which you think ought to be brought to our attention which might lead to a different result, we would, of course, be glad to meet with you.

AL/CWS:ep

Princeton University: DEPARTMENT

INTER-OFFICE CORRESPONDENCE

To Chairman, Department Y

DATE October 20, 1975

SUBJECT Department Operating Budget, 1975-1976

FROM Aaron Lemonick
Carl W. Schafer

In our general memorandum to Chairmen of Academic Departments of October 9, 1975, we indicated that we would be sending a separate note to each department indicating our specific judgments on the 1975-76 budget.

Since your department seems to us to fall within the group of departments which have been getting less than they would seem to need as measured by their level of teaching and research, the budget for the current year has been set at a level of $10,000 higher than last year's actual results at a time when most departments will have no increase or even a cut in operating funds from last year.

Therefore, this is to notify you that the 1975-76 budget for your Department's non-faculty salaries and benefits, and operating expenses (other than computer charges) on general funds has been set at $83,750. As we stated in our earlier memorandum, you are free to allocate these funds pretty much as you see fit, i.e. you can increase your operating expense budget by reducing supporting staff (or vice versa).

Should you have any questions about the interpretation of this number, we would suggest that you get in touch with Assistant Controller Chris McCrudden on extension 2-3294. We would also suggest that you get in touch with your regional representative in the Personnel Office if you need any assistance in matters of staffing.

We recognize that this budget allowance is not quite as generous as it might perhaps seem at first blush because the additional amount allowed for this year must cover pay raises for employees of the department which have already been granted. Nevertheless, in view of the extremely severe reductions being imposed on other departments, we want to assure you that an increase, which is hardly the rule at this time, is being made in the interests of equity among departments.

AL/CWS: ep

Princeton University: DEPARTMENT

To Chairman, Department Z

DATE October 20, 1975

SUBJECT Department Operating Budget, 1975-1976

FROM Aaron Lemonick
Carl W. Schafer

INTER-OFFICE CORRESPONDENCE

In our general memorandum to Chairmen of Academic Departments of October 9, 1975, we indicated that we would be sending a separate note to each department indicating our specific judgments on the 1975-76 budget.

Since your department seems to us to fall in the broad middle group of departments, as described in our earlier memorandum, your operating budget for this year has been set at last year's actual level.

Specifically, the 1975-76 budget for the non-faculty salaries and benefits, and operating expenses (other than computer charges) on general funds in your department is $27,180. As we stated in our earlier memorandum, you are free to allocate these funds pretty much as you see fit, i. e. you can increase your operating expense budget by reducing supporting staff (or vice versa).

Some curtailment of departmental activities may be necessary to achieve this target, inasmuch as pay raises have already been granted for this year and other operating costs have increased due to inflation. This curtailment is part of the general effort across the University to attempt to close our budget gap. We also recognize that this memorandum is reaching you well after the start of the fiscal year when many commitments have already been made.

We would be pleased to talk with you as you examine the effects of this budget allowance. If you need assistance in getting at the appropriate figures, please do not hesitate to call Assistant Controller Chris McCrudden on extension 2-3294. We also urge you to be in touch with your regional representative in the Personnel Office so that he or she may assist you in matters of staffing.

AL/CWS:ep

Princeton University: DEPARTMENT

INTER-OFFICE CORRESPONDENCE

To Chairman, Department
of

DATE June 26, 1979

SUBJECT Allowance for Departmental
Administrative Expenses
for FY79-80

FROM Neil L. Rudenstine
Aaron Lemonick
Carl W. Schafer

As you may know budgets for administrative and operating expenses (secretarial services, telephone, miscellaneous operating costs, etc.) are based on teaching budgets and levels of sponsored research. In developing next year's budget we have made two comparisons: the current year's authorized number of teaching budget FTE's versus next year's authorized number and the sponsored research operating expenditures in FY78 (adjusted for inflation) versus the projection of those same expenditures in the current year. Changes in either or both of these activities have been taken into consideration in determining the Department's budget allowance for the upcoming year. In addition we have added an inflationary factor of 7.0%. This represents the net amount of increases recommended by the Priorities Committee for salaries, operating expenses, and a 1% increase in the benefit rate.

Because of the decrease in the   in your department, we are not increasing your current budget allowance by the entire 7.0% inflationary adjustment. Instead, we are adding $, which when added to your FY79 budget allowance of $ results in a new budget allowance for FY80 of $.

The Controller's Office needs a distribution of this budget allowance among the various departmental accounts in order to make entries on our budget and bookkeeping reports. Mr. Craig Richmond (2-3295) can provide any assistance you or your staff may need in developing estimates of salary and personnel benefits and operating costs necessary to make this distribution. Distributions can be made by phone, or by informal memorandum to Mr. Richmond. In addition, of course, we would be happy to discuss with you any questions you have about your budget or about the budgetary process in general.

NLR/AL/CWS:pjp

cc: R. Spies
A. J. Maruca
C. McCrudden

Neil Rudenstine
Aaron Lemonick
Carl Schafer

Princeton University: DEPARTMENT

To Chairman, Department
of

DATE June 18, 1979

SUBJECT Allowance for Departmental Administrative Expenses for FY79-80

FROM Neil L. Rudenstine
Aaron Lemonick
Carl W. Schafer

INTER-OFFICE CORRESPONDENCE

As you may know budgets for administrative and operating expenses (secretarial services, telephone, miscellaneous operating costs, etc.) are based on teaching budgets and levels of sponsored research. In developing next year's budget we have made two comparisons: the current year's authorized number of teaching budget FTE's versus next year's authorized number and the sponsored research operating expenditures in FY78 (adjusted for inflation) versus the projection of those same expenditures in the current year. Changes in either or both of these activities have been taken into consideration in determining the Department's budget allowance for the upcoming year. In addition we have added an inflationary factor of 7.0%. This represents the net amount of increases recommended by the Priorities Committee for salaries, operating expenses, and a 1% increase in the benefit rate.

Because of the increasing teaching and/or sponsored research levels in your department we are adding $ to your budget allowance in addition to the 7.0% adjustment for inflation. The total increase for next year is $ which when added to your FY79 budget of $ results in a new budget allowance for FY80 of $. Clearly if the increased levels of activity are not maintained, future budget allowances will have to be reduced accordingly.

The Controller's Office needs a distribution of this budget allowance among the various departmental accounts in order to make entries on our budget and bookkeeping reports. Mr. Craig Richmond (2-3295) can provide any assistance you or your staff may need in developing estimates of salary and personnel benefits and operating costs necessary to make this distribution. Distributions can be made by phone, or by informal memorandum to Mr. Richmond. In addition, of course, we would be happy to discuss with you any questions you have about your budget or about the budgetary process in general.

NLR/AL/CWS:pjp

cc: R. Spies
A. J. Maruca
C. McCrudden

Neil Rud
Aaron Lemonick
Carl W Schafer

Appendix III - 7

Princeton University: Department

To Chairman, Department of

Date June 18, 1979

Subject Allowance for Departmental Administrative Expenses for FY79-80

From Neil L. Rudenstine
Aaron Lemonick
Carl W. Schafer

INTER-OFFICE CORRESPONDENCE

As you may know budgets for administrative and operating expenses (secretarial services, telephone, miscellaneous operating costs, etc.) are based on teaching budgets and levels of sponsored research. In developing next year's budget we have made two comparisons: the current year's authorized number of teaching budget FTE's versus next year's authorized number and the sponsored research operating expenditures in FY78 (adjusted for inflation) versus the projection of those same expenditures in the current year. Changes in either or both of these activities have been taken into consideration in determining the Department's budget allowance for the upcoming year. In addition we have added an inflationary factor of 7.0%. This represents the net amount of increases recommended by the Priorities Committee for salaries, operating expenses, and a 1% increase in the benefit rate.

On the basis of the above comparisons and after reviewing relevant data for your department we have concluded that your budget allowances should not be changed except for the inflationary adjustment of 7.0%. The inflationary adjustment provides an increase of $ which when added to your FY79 budget allowance of $ results in a new budget allowance for FY80 of $. The policy of allowing savings of departmental administrative allowances to be carried forward into future years in special restricted accounts will continue as before.

The Controller's Office needs a distribution of this budget allowance among the various departmental accounts in order to make entries on our budget and bookkeeping reports. Mr. Craig Richmond (2-3295) can provide any assistance you or your staff may need in developing estimates of salary and personnel benefits and operating costs necessary to make this distribution. Distributions can be made by phone, or by informal memorandum to Mr. Richmond. In addition, of course, we would be happy to discuss with you any questions you have about your budget or about the budgetary process in general.

NLR/AL/CWS:pjp

cc: R. Spies
A. J. Maruca
C. McCrudden

Neil L Rudenstine
Carl W. Schafer
Aaron Lemonick

IV. ENDOWMENT MANAGEMENT AND THE NEW ENDOWMENT INCOME SPENDING POLICY

The Management of the Endowment

At Princeton, as at most other endowed institutions, the Trustees are responsible for setting overall policies for the investment of endowed funds. As part of this responsibility, they determine the proportion of the endowment to be invested in stocks, bonds, or other media, and determine appropriate levels of risk, establish the total investment return to be sought, and decide how much of that return should be spent and how much set aside for the future.

During 1977, several aspects of Princeton's investment management were reviewed by the Trustees. The first issue concerned the investment structure. For some time, a small Trustee committee had had the sole discretion to buy and sell securities. Although the committee normally acted after receiving the recommendations of an outside investment advisory organization, they retained direct responsibility for the specific investment decisions. This model had been an extremely successful one, but the Chairman of the Committee, who over the years had contributed enormous amounts of time and expertise to Princeton's investment management, was about to retire from the Board. It was unlikely that the University would be able to find someone with as great investment skills who would also have both the time required to manage a portfolio of Princeton's size and the willingness to devote that time to Princeton on an unpaid basis. In addition, there was some concern about developing legal doctrines concerning conflicts of interest and "insider information" in securities transactions.

The Board considered four alternative models for an investment management structure:

1) The same structure as in the past, under which the Trustees themselves retain direct responsibility for specific investment decisions.

2) Delegation of the selection of securities to one or more small investment advisory firms which would have Princeton as their dominant client. Although the staff of these firms would make actual decisions to buy and sell securities, close interaction with a Trustee committee would still take place.

3) Delegation of the selection of securities to one or more banks, insurance companies, or major investment-management firms.

4) Some form of "in-house" management, involving either hiring professional investment managers as members of the University's own staff, or the establishment of a captive investment management organization as a wholly-owned but separate legal entity.

The Board also identified certain considerations which they felt should determine the final choice of an investment structure. The following factors, listed in no special order, were taken into account:

1) The ability to attract and hold people with real investment expertise and independent judgment.

2) The ease with which the managers of the portfolio could be evaluated, and changes in management could be accomplished, if that should prove desirable.

3) Priority of service, which means simply the assurance that the interests of Princeton University will not be subordinated to the interests of any other investors.

4) An appropriate sense of time horizons -- that is, the ability to recognize that Princeton is a perpetual institution, with both current and future needs, and that investments need to be managed accordingly.

5) Appropriate protection against real or apparent conflicts of interest and related problems.

6) Cost.

In determining which management system to adopt, the approach the Investment Committee took was to try to identify the best possible individual people -- without regard to the type of organization for which they were then working. Only secondary consideration was given to the question of whether these people would work in an internal or external framework, although, as it turned out, all of the managers finally chosen were with outside firms and wished to remain with those firms.

The first step taken by the Committee was to draft an investment policy statement and to secure its adoption by the Trustees. This statement set forth general investment policies, including the nature of the investments to be made:

-- The basic investment objective is maximum total return consistent with acceptable levels of risk. Princeton seeks a total return over time of 10-11%, normally spending 4-5%, and leaving the balance to help offset inflation in future years.

--Based on this objective, a substantial commitment to common stocks or equity equivalents in the order of 70-80% is viewed at this time as providing the appropriate levels of risk and return. As shifts in economic and investment prospects suggest, a range of equity commitment of 50-80% should be appropriate.

--The portfolio should be diversified. This means that there should be securities in the portfolio that are not similarly affected by the same economic, political or social developments.

--The portfolio should not include real estate, options, and other alternatives to stocks and bonds at this time -- other than the real estate investment represented by the Princeton Forrestal Center and a few other smaller existing holdings -- although such investments might be considered at some point in the future.

--Securities should be selected which have significantly better than average long-term investment potential -- rather than for a promise of short-term gain.

--High-risk investments should be made only when substantially higher-than-average returns are offered. However, a modest amount of the equity portion of the portfolio (10-15%) may at times be invested in stocks which are other than "investment grade" (emerging growth companies and the like).

--Long-term bond holdings should be highly marketable and of reasonable quality (none lower than A-rated).

The next step was to enlist the help of a group of knowledgeable people (some of them Trustees and some of them not), whose responsibilities had exposed them to the work of a number of investment managers. The Chairman of the Executive Committee of the Board asked each of these people (seventeen in all) to identify one or two individuals who -- in their experience -- were extraordinarily successful as investment managers. The Committee also retained the services of a consulting firm which specializes in searching for investment managers.

Ninety-one names were suggested. After an initial screening by the consultants and the Trustees' Investment Committee, sixteen managers from eleven firms were interviewed by the Committee, the Financial Vice President and Treasurer, and the consultants. As a matter of policy, no unsolicited presentations were entertained.

The final recommendation -- which was unanimous -- was accepted by the Board of Trustees in October, 1977. It entailed the appointment of four individuals at four different investment firms, one of whom manages the bond portion of the portfolio and three others who are assigned portions of the equity portion of Princeton's endowment.

Establishing a Spending Policy

Total return is a measure of the total earnings from the portfolio, consisting not only of dividends and interest but also of appreciation or depreciation in the market value of the securities held in the endowment. The total return objective adopted by the Trustees was 10-11% per year, a goal based on reasonable expectations about future investment performance, given the level of risk implied in the Princeton portfolio.

However, at the time they set this objective, the Trustees felt that there were a number of reasons for studying the policy which determined the portion of the total return to be spent currently and the portion which was to be set aside for the future. For many years Princeton's policy had been to spend all dividends on stocks and all interest on bonds -- but none of the capital gains. However, while the total spending stream was deemed adequate under this system, the year-to-year increases in dividends and interest were neither as stable nor as predictable as was desirable. Expressed in terms of the percentage change from the prior year, annual changes over the past two decades ranged from no change at all to an increase of 13%.

Clearly, variations of this magnitude introduced considerable uncertainty into the budget-making process.

Moreover, Princeton's decision to delegate investment management to four outside firms was likely to cause even more variation in dividend and interest income in the future. Each manager had been asked to select securities so as to produce -- in the aggregate -- the desired 10-11% total return. However, no requirements of current income (i. e., a certain level of dividends and interest) had been imposed on the managers. Thus, the possibility existed that all of the managers might at some point in the future be simultaneously invested in either very high or very low-yield securities. Such changes in investment strategy, which would be perfectly consistent with the stated investment policies, would produce wide swings in dividends and interest received from year to year.

For these reasons, the Trustees decided to explore the possibility of changing the formula for the spending of endowment income. It should be emphasized, however, that the review of past practices was not initiated as a result of any feeling that the current rate of spending was either too high or too low. Indeed, the Trustees believed that the current rate of spending (4-5% of market value) represented about the right balance between present and future needs -- especially considering the persistent inflationary trend in the economy as a whole and in Princeton's operating budget in particular.

In September, 1978, the Committee on Finance of the Board of Trustees approved the establishment of an Ad Hoc Subcommittee on Endowment Income Spending. This subcommittee set three objectives for an endowment spending plan: (1) to strike a reasonable balance between meeting the University's current needs and assuring that sufficient funds are set aside for the future; (2) to provide for a reasonable degree of stability and predictability in the income available for current operations; and (3) to insulate the new investment managers from any pressure to produce dividends and interest as opposed to achieving the best total return.

After analyzing a number of different options with these objectives in mind, the subcommittee recommended certain changes in the spending rule which were subsequently approved by the full Committee on Finance and by the full Board of Trustees in January 1979. In particular, the plan they adopted calls for annual increases of 6% in income distributed from funds participating in the primary investment pool, beginning from a base figure represented by the amount of income per unit of the fund being spent in the current fiscal year (1978-79). Annual increases of 6% in spending were felt to be consistent with both the University's total-return objective of 10-11% and its current rate of spending, approximately 4-5%. Spending 4-5 percentage points out of a total return of 10-11 points leaves approximately 6 percentage points of the return to be "plowed back" or reinvested in the endowment, and over the long run that reinvestment ought to permit spending to grow at an annual rate of approximately 6%. This rate of growth is crucial if the University is to meet its future commitments because inflation in most areas of the University budget, including importantly salaries, has been proceeding at something like a 6% rate, sometimes even somewhat above that.* Under this spending policy, an endowment fund that currently provides enough income, for example, to cover a professor's salary at today's salary levels ought to cover that professor's salary in future years as well, including a provision for salary increases of approximately 6% per year.

In adopting this rule, the Trustees stressed that the new rule will probably not result in spending more income than would have been provided under the old policy of spending dividends and interest (and, in fact, will almost surely result in spending less than that amount in 1979-80), but that the income stream will be more stable and predictable in the future.

The Trustees recognize that such a formula will need to be kept under continuing review, and that the planned increases in spending of 6% per year represent a strong presumption rather than an ironclad commitment. Some of the possible future developments which would call for a review of--and a possible change in -- the presumed 6% annual increases in spending include (1) achievement of a total return significantly less than (or greater than) 10-11% over a period of time, (2) spending rates rising above (or falling below) certain percentages of the market value of investments, (3) a significant impairment of the income reserves which would be expected to be available at the outset of the new spending rule, and (4) significant changes in, or projected changes in, the rate of inflation in the economy and in Princeton's budget.

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* This policy was adopted before the most recent burst of inflation and it is still hoped that, in the long run, inflation in university budgets can be held to around 6%. However, it should be pointed out that, if inflation is going to continue at 10% indefinitely, our estimate of total return on endowment ought to increase as well.

In conclusion, it should be noted that, although the changes in Princeton's investment structure and spending policy are important ones, the fundamental principles governing the handling of the University's endowment have not been altered. Basic investment strategy is still the responsibility of the Trustees, and that strategy has not changed significantly. Indeed, the total return objective, risk levels, and the nature of the University's holdings are all similar to what existed before the review. In addition, the fundamental balance between spending for present needs and reinvesting for the future has remained basically unchanged despite the implementation of a new spending policy.

V. CHANGING THE INDIRECT COST RATE

Background

Scientific research has been conducted at Princeton since before the turn of the century. However, until World War II, it was performed on a very small scale and supported -- if it had any outside support -- by funds from individuals, foundations and industry. However, as nationwide recognition of the importance of scientific research developed during the war, the amount of federal monies allocated for research increased sharply, and many universities took advantage of these funds to expand their research efforts, particularly in the sciences and engineering. In 1938-39, for instance, Princeton received less than $30,000 for sponsored research (all from private sources); ten years later the University's research budget was approximately $1,200,000, with the great bulk of the money provided by the federal government. During the 1950s research support at Princeton underwent another twelvefold increase, and today Princeton receives about $20 million for sponsored research annually. (This last figure does not include the Plasma Physics Laboratory (PPL), a project funded by the Department of Energy which is exploring the use of nuclear fusion as a source of energy.)

As the amount of sponsored research performed on campus has grown, so has the mechanism set up to administer it. Currently there are three separate structures which handle different aspects of research administration. The University Research Board (URB) oversees all research activities of the University. Composed of a faculty chairman with the rank of Dean, six other faculty members representing all four academic divisions, and three members of the administration, the Board has general oversight of all externally funded research. It advises the President on all matters concerning the conduct of research, sets policies regarding the acceptance of sponsored research, and approves all proposals for outside funding. The responsibility for actually implementing the URB's policies and decisions lies with the Office of Research and Project Administration (ORPA) which also assists faculty in seeking support for particular projects, negotiates contracts, and prepares reports. The third office involved in research administration is the Controller's Office which oversees the financial arrangements for each contract and also prepares periodic financial reports for each project. One important aspect of the Controller's duties is the annual computation of indirect costs.

Direct and Indirect Costs

The funds received for research projects are intended to cover both direct and indirect costs. Direct costs are those expenses -- such as the salaries and benefits of the people working on the project -- which can be readily identified and charged to a particular research enterprise with a reasonable degree of accuracy. Indirect costs are the other expenses which are necessary to support the overall research effort but cannot be assigned specifically to any individual project without an extraordinary -- and costly -- effort to monitor workflows in many offices (and sometimes not even then). These indirect costs fall into five basic categories:

1) Physical plant operation and maintenance (including energy costs, janitorial services, capital improvements and building depreciation, and allowances for equipment use);

2) Departmental administration (secretarial services, telephone costs and other similar expenses within the academic departments where the research is being conducted);

3) Academic administration (services provided by such central administration offices as the Dean of the Faculty, the University Research Board, the Office of Research and Project Administration, etc.);

4) Library;

5) General administration and expenses (other more general or business-oriented functions of the central administration, including the President's Office, the Controller's Office and other administrative offices).

Since these facilities and offices also support the instructional functions of the institution, it is necessary to determine the proportion of their costs which are directly attributable to sponsored research contracts before seeking any reimbursement from the sponsoring agencies. Apportioning total indirect costs between instruction and sponsored research is extremely difficult -- primarily because the research and teaching functions of a university are so inextricably intertwined that it is impossible to separate them precisely. As a result, the formulas which are used to attribute expenses to either instruction or research are frequently very complex. Generally speaking, however, the apportionment of each category of indirect costs is governed by the following principles:

1) Physical plant: Plant expenses are normally allocated on the basis of salaries. This means that a fraction of total plant costs will be attributed to sponsored research based on the proportion of total University salaries actually charged to research contracts. In a few specific cases these costs are allocated on the basis of space (square feet) occupied, but normally the apportionment is roughly in the ratio of total direct salaries covered by research versus salaries attributed to instruction.

2) Departmental administration: These costs are divided on the basis of total direct salaries. For example, if sponsored research pays $8 million worth of salaries and instruction accounts for $12 million in salaries, 40% of the departmental administration costs are allocated to sponsored research.

3) Academic administration: The expenses of the offices of the Dean of the Faculty and the Dean of the Graduate School are allocated on the basis of direct salaries, as in (2) above. None of the expenses of the student-related offices of the central administration (such as the Registrar's Office and Admissions) are attributed to research, but almost all the expenses of the office which administers research (ORPA) are included here as a research-related expense.

4) Library: The total cost of the library is first divided between students and faculty members based on a study of library usage. Since that study showed that about half the library usage could be attributed to students, half of the expenses are attributed immediately to instruction. Then the faculty portion is allocated between research and instruction in proportion to direct salaries, as in (2) above.

5) General administration: These indirect costs are allocated in proportion to total direct and indirect costs calculated up to this point.

Once the total amount of indirect costs attributable to sponsored research is determined, the costs are then expressed as a percentage of total direct costs. This calculation of an "indirect cost rate" is very simple conceptually, but in the early 1970s many faculty members became concerned about the way in which that rate should be expressed -- or precisely which items should be included in direct costs. The policy review that was undertaken as a result of that concern, and the process of changing from one method of calculating the indirect cost rate to another, is described below.

A Change in the Indirect Cost Rate

In 1959, when Princeton first began to calculate an indirect cost rate, the direct costs on which the rate was based included only the salaries of those people working on research projects. Although minor theoretical and mechanical revisions in the calculations were made from time to time, the indirect cost rate continued to be expressed as a percentage of salaries for the next 15 years. During that period, however, the extremely rapid increases in prices of those items included in indirect costs -- relative to the salaries of the researchers -- had a marked effect on the rate. The audited rate rose from a low of 62% in 1962 to 103% in 1975.

By early 1974 it had become clear that a thorough review of the indirect cost rate was required. The rate had been rising steadily, exceeding 100% for the first time in 1974, and further increases were forecast for the future. Even though strenuous efforts were being made to hold down overhead expenses, several of the costs in the indirect pool were rising faster than all other categories of expenditures: energy costs, for example, had almost doubled between 1970 and 1974, and the average price of a book bought by the University Library had increased by more than half. The table below shows the components of the indirect cost rate over this period, expressed in each case as a percentage of salaries charged directly to sponsored research projects.

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Indirect Cost Rate

Main Campus Research

Percent of Direct Salaries

Item	Fiscal Year					Change 1970-1974	
	1970	1971	1972	1973	1974	Amount	%
Departmental Administration	31.17	31.62	33.80	35.54	37.25	+6.08	+19.5
Academic Administration	5.66	5.00	4.76	5.17	4.89	- .77	-13.6
Library	8.79	11.71*	11.81	12.62	13.38	+4.59	+52.2
Planning, Plant & Properties:							
Maintenance	18.53	19.59	19.06	19.55	20.87	+2.34	+12.6
Depreciation	10.20	9.89	9.86	9.65	9.37	- .83	- 8.1
General Administration	14.17	15.47	14.89	14.61	14.54	+ .37	+ 2.6
Total	88.52	93.28	94.18	97.14	100.30	+11.78	+13.3

Additional impetus for a review was provided by the fact that, in recent years, the indirect cost rate actually billed to contracts and grants had been held below the audited rate; in other words, although the actual (audited by the federal government) costs incurred by Princeton for indirect expenses of research amounted to more than 100% of salaries, the University was still billing only 85%. The rate had been held down deliberately, to maintain Princeton's competitive position and to provide projects with some relief from the burden of indirect costs. In effect, the University was subsidizing the projects -- indirectly -- with general funds. (The decline in sponsored research support that occurred in the early 70s had squeezed project budgets so severely that relief from a portion of the total indirect cost burden was considered necessary.)

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* Allocation of Library costs to PPL was reduced in 1971 and subsequent years to a negotiated amount, which increased the rate on all other activities for Library by approximately 1.32 percentage points.

By 1975, however, the University's overall financial situation had worsened considerably, as demonstrated by a budget deficit of $504,000 in 1974 and a projected deficit of $1.5 million for 1975. These imbalances made it painfully clear that the University could no longer afford to forego annual revenue estimated at more than $800,000 and that this voluntary cost sharing would have to be reduced or discontinued altogether. Therefore, the URB was asked to examine the level of indirect cost recoveries on sponsored research -- and to consider whether Princeton should be billing at the full audited rate.

A third reason for undertaking such a review was a widely held belief that Princeton ought to revise its indirect cost system to express these costs as a percentage of total costs or some similar measure, rather than salaries. Even though such a change might be largely cosmetic in that it would have no real effect on the total amount of indirect costs recovered, there were indications that government sponsors of research would be favorably disposed toward this change, if for no other reason than the fact that it would make it easier to compare Princeton's rate with those of other institutions (the majority of which expressed their indirect cost rates in this manner). Moreover, most people agreed that, although allocating indirect costs on the basis of total direct costs would increase the burden on some projects (those that had a smaller proportion of their direct costs in salaries) and reduce the burden on others, it generally represented a more equitable method of distributing that burden among the various projects.

Other Considerations

Although the concerns expressed so far constituted the major rationale for considering a change, there were some individual aspects of the indirect cost rate which had been questioned over the years, and other such questions quickly arose as consideration was given to changing the base. It made sense to study all these issues at the same time that the general formula was reconsidered:

1) The salaries of a few members of the tenured faculty were charged to sponsored research projects. Should this practice be continued, inasmuch as it exposes the University to a certain degree of risk if the level of sponsored research were to be reduced drastically?

2) Since outside support for graduate student fellowships had declined markedly in recent years, were there incentives which the University could

offer project leaders to put graduate students on projects as assistants in research and could such incentives be offered without a major increase in general funds allocated to this area?

3) The departmental administration component of the indirect cost rate (costs incurred within academic departments and programs) had increased significantly in recent years. Would an individual rate for each academic department offer an incentive to such departments to hold down these costs? (See Chapter III for a description of the budgeting system that was developed for departmental administration.)

4) Should secretarial staff be charged directly to research projects, thus reducing the indirect cost rate further?

5) Should large subcontract expenditures be excluded from the direct cost base? If so, above what level should these subcontracts be exempted? Similarly, what cutoff level should be established for excluding capital equipment purchases from the rate base?

6) How should "in-house" purchases be treated? (As the term suggests, "in-house" purchases are those which involve transactions within the University for goods or services bought from Princeton's own service units, such as the Central Machine Shop or the Computer Center.)

7) Should Princeton continue its policy of charging a separate rate for "off-campus" research projects?

The Indirect Cost Study

In response to a request by the University Research Board, the Controller's Office began a study of indirect costs in the fall of 1973.* The procedure involved the construction of a model which would permit alternative assumptions to be tested. In this way the assumptions -- and the policy decisions -- could be varied and the net effect of each change, or combination of changes -- could be calculated. In the course of this study, a concerted effort was made to review all materials and suggestions which pertained to the existing cost method, and to solicit the views of the faculty actually engaged in sponsored research. To assist in that process, a special URB subcommittee was appointed to provide guidance to the project.

Once the initial assumptions were agreed upon, calculations were begun, and the effect of each assumption -- on dollar recoveries and the indirect cost rate -- was determined. (Calculations were made initially for 1973-74 (FY74) research dollars although they were later repeated for FY73 so that more than one year was studied.) The URB then used this model to develop a set of recommendations, and those recommendations were presented to the President in November 1974. With the support of the Priorities Committee and the President, those recommendations were adopted formally on July 1, 1975.

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* Assistant Controller Lenise Smith was responsible for most of the work, although other members of the Controller's Office, the Office of Research and Project Administration, and members of the URB provided considerable assistance in the project.

Recommendations

The new policy incorporated two important changes: the first was the decision to begin charging the full audited indirect cost rate; and the second was a change in the indirect cost base from salaries to modified total direct costs (MTDC). During the transitional phase both of these rules were to be applied only to new contracts and grants and to existing contracts and grants at the time they were renewed; no changes were to be made on those contracts and grants already underway.

Under this system, MTDC is defined as the total direct costs of each project or grant except for:

- -- capital equipment (defined as items which cost more than $200 each and have a useful life of more than one year)
- -- capital construction
- -- subcontract expenditures in excess of $10,000 per subcontract
- -- purchases from the following centralized University services: Computer Center, machine shop, printing and duplicating shop, food services, and stockroom
- -- any special utilities which are charged directly, such as the electricity and air conditioning provided for the accelerator in the Physics Department

The first two items in this list were excluded in the belief that capital items should generally not be subject to overhead. As far as the third item is concerned, the recommended cutoff on subcontract expenditures was a matter of judgment, but it was felt that a much higher cutoff would be inappropriate on the grounds that large subcontracts do not actually cause proportionally greater indirect costs. Finally, the exclusion of purchases from central University services was thought to be warranted inasmuch as these services already include most of their own indirect costs in the rates charged (and under the recommended system would include all such costs).

In another policy change, the use of the off-campus rate was restricted to very few, specifically identified projects. The main reason for this change was the belief that most research regardless of location, benefits at least to some degree from on-campus facilities and services. Moreover, the number of such projects was so small that a separate indirect cost rate did not seem warranted.

The table below compares the new audited rate based on the MTDC method with the previous salary-based rates for both instruction and research (on-and off-campus), using FY74 figures:

	Previous Method Based on Salaries	Recommended Method Based on MTDC
Research		
Main campus	100.30	52.14
Off-campus	30.12	52.14
Forrestal campus		
Plasma Physics Laboratory	57.93	29.23
Other	91.09	54.51
Instruction		
Main campus	155.08	108.55
Forrestal campus	145.75	101.38

(Although under the new system the Forrestal campus research rate came out to be slightly higher than the main campus rate, it was recommended that the billing rate be the same for both campuses. It was expected at that time -- and it did actually come to pass -- that most of the non-PPL research conducted at Forrestal would be relocated to the main campus and therefore a separate Forrestal campus cost center was not felt to be necessary.)

In the following table the main campus research rate is broken down further to show each component's share of the total, both for the original and new rates:

	Previous Method Based on Salaries	Recommended Method Based on MTDC
Physical Plant:		
Maintenance	20.87	10.59
Depreciation	9.37	4.75
Departmental Administration	37.25	20.03
Academic Administration	4.89	2.71
Library	13.38	6.79
General Administration	14.54	7.27
	100.30	52.14

The Impact of the New System

Estimating the impact of the new system on the University's recoveries of indirect costs from projects was very difficult, especially since no one really knew what the effect on funding levels would have been had we been billing the full audited rate. Nevertheless, the following mechanical translations based on the actual levels of government sponsored research (excluding PPL) for FY74 were made to get a general idea of the dollar impact of the change:

Total actually collected	$ 3,950,000
Estimated collections if all projects had been at full billing rate of 85% for the entire year (there are always a few lags and exceptions)	4,200,000
Estimated collections if the full audited rate of 100.30% of salaries had been used (assuming the same level of direct salary charges)	4,790,000
Estimated collections if billing had been at 52.14% of MTDC	4,740,000

(Theoretically, the last two numbers above should be the same. The relatively small difference between them is due to applying the rates, which have been computed on a combined total of government and nongovernment projects, only to the government projects. The expense components of the new MTDC base are not quite in the same proportion for government and nongovernment projects.)

Since the modified total direct cost base for FY74 was slightly in excess of $10 million, each reduction of one percentage point in the billed rate below the audited rate of 52.14% would have resulted (again, all other things being equal) in a reduction of about $100,000 in indirect costs recovered.

Other Alternatives Which Were Considered

1) Charging tenured faculty salaries to general funds

Although transferring these charges to general funds would insulate the University from the effect of a sharp curtailment of sponsored research by the government, Princeton's large number of individual projects offers considerable protection against this eventuality -- it is highly unlikely that all of the University's research sponsors would withdraw their funds simultaneously.

Even more pertinent, however, is the cost of such a transfer. In 1974, for example, the cost of making this change would have been an increase in the University's deficit of something like $565,000, derived as follows:

Tenured faculty salaries (academic year only) direct charged to government sponsored research projects (other than PPL)	$ 306,000
Benefits on the above salaries	65,000
Indirect costs at new rate	194,000
	$ 565,000

2) Providing an incentive to increase the number of graduate student

assistants in research (AR's) charged to sponsored research projects

Although there are a number of different kinds of incentives which could be offered to put AR's on contracts, the four described below seemed to be the most reasonable and were the only ones considered in any depth.

a) Salaries and tuitions could be left in the base for computing the audited indirect cost rate, but no overhead would actually be charged on them. Although this system would have no effect on the indirect cost rate, the University would lose the entire amount of indirect costs on AR tuitions and salaries, which in FY74 would have constituted a loss to general funds of about $690,000 (excluding PPL).

b) The overhead charges on AR salaries and tuitions could be eliminated by taking them out of the base. Under this system, impact on general funds would be minimized, but the indirect cost rate would have risen from 52.14% to about 58.48% (because the base would have been reduced). Thus, the lack of overhead on AR tuitions and salaries would have to be made up by imposing a higher indirect cost rate on all other types of costs.

c) The possibility of providing some relief in conjunction with the University's required cost-sharing on government projects was also explored. It was concluded that the University's current estimated cost-sharing as a percentage of total project costs was about 16.2%, while the required level of cost-sharing was in the 3-5% range. Therefore, relieving projects of the cost of AR's would entail further expenditures of general funds when the University was already far exceeding the required level.

d) One other way to grant relief to projects employing AR's was to shift some of the cost of tuition from the projects to general funds. In FY74, the University employed 238 assistants in research. For every $100 of tuition transferred from project funds to general funds, the actual loss to general funds would be $152 (including indirect costs at the rate of 52% of MTDC). Using 238 AR's as a multiplier, each $100 tuition shift would cost general funds about $36,000. About a third of the AR tuition was already paid for out of general funds, and it did not seem appropriate to increase that subsidy further at that time.

3) Individual rates for departmental administration

To calculate a different indirect cost rate for each academic department, the total departmental administration indirect cost pool would have to be divided among the departments in proportion to each department's controllable general funds spending for supporting staff and operating expenses. Although such a calculation is possible, there are a number of drawbacks to using such a system of individual rates:

First, the difference between the various indirect cost rates would be too great. In 1974, it would have ranged from a high of about 90% of MTDC for one department to a low of 42%.

Second, it was found that the rates fluctuated from year to year -- sometimes dramatically. In one department the rate actually changed by 11.64 percentage points between 1973 and 1974.

Third, it was felt that the risk of confusing sponsors -- and potential sponsors -- was substantial if different departments had different indirect cost rates.

Fourth, it was at least probable that when the computed departmental rate was greater than the average rate, the auditors would limit the recovery to the average rate. This "heads the government wins, tails the University loses" aspect would be expensive.

Given all these problems, the conclusion was that it would be preferable to try to influence departmental administration costs through the budget process rather than through differential indirect cost rates. (Again, see Chapter III for a description of the budgeting system that was developed in this area.)

4) Direct charging of secretaries

The proposal to direct charge secretaries to research projects has a good deal of merit, both because it would reduce the indirect cost rate by at least 3 1/2 points on the MTDC base and because it would offer some incentive for research projects to economize on the use of secretarial help. However, it was felt that implementation of such a change at the same time that all the other changes were being made would have been unwise. For one thing, many projects would have been confronted with a situation in which the amount of indirect costs charged to their projects was rising at the same time that a cost which had previously been a part of indirect costs was becoming a direct charge to the project. It was also felt that there would be a great deal of resistance to the added administrative burden of time and effort certification that federal regulations would require of the secretaries. In addition, since plans were already underway to examine the support staff of academic departments more generally as part of the overall review of the budget for departmental administration, it seemed best to wait to assess the impact of direct charging secretaries to individual projects until after this study had been made.

The Transition Period

The URB recognized that the introduction of any new system of calculating indirect costs would necessarily have a quite different impact on different research projects, depending upon the proportion of total direct costs represented by salaries. Some projects (those having a proportionately high salary component) would be much better off; others, particularly the large experimental projects with a relatively low salary component, would be adversely affected unless sponsors allowed the higher indirect costs simply to be added to the total project costs already funded. Some idea of the impact can be obtained from the following table, using FY74 figures (the actual recoveries assuming full application of the present billing rate of 85% of salaries are also shown for comparative purposes):

	Total Project Expend- itures (1)	Indirect Costs 85% of Salaries (2)	 100. 30% of Salaries (3)	 52. 14 % of MTDC (4)	Net increase (decrease) in indirect costs (4) - (3) (5)
Projects with high proportion of salary expense					
A	106,720	63,611	75,061	57,413	(17,648)
B	90,688	48,044	56,692	41,660	(15,032)
C	122,462	71,144	83,950	57,715	(26,235)
D	28,178	16,378	19,326	13,516	(5,810)
E	22,188	13,248	15,633	11,541	(4,092)
F	6,386	4,486	5,293	3,330	(1,963)
Projects with low proportion of salary expense					
G	691,516	265,602	313,410	330,463	17,053
H	450,245	164,813	194,479	200,130	5,651
I	170,044	39,991	47,189	87,108	39,919
J	14,990	2,647	3,123	7,695	4,572
K	49,115	3,489	4,117	25,608	21,491
L	20,774	3,987	4,705	10,600	5,895
Projects now classified as off campus*					
M	18,177	4,500	4,518	9,477	4,959
N	8,041	1,499	1,505	4,193	2,688
O	8,439	2,200	2,209	4,400	2,191

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* For off campus projects, indirect costs (columns (2), (3), and (4)) are computed at 30% of salaries, 30.18% of salaries, and 52.14% of MTDC, respectively.

Where sponsors were unwilling or unable to increase total funding to accommodate higher costs, the URB agreed that some relief should be provided to help specific projects through the transition period.

Therefore, it was recommended that some assistance be made available in particular cases where substantial hardship could be demonstrated, and project leaders who felt that a request for relief was justified were encouraged to consult with ORPA. The following upper limits were recommended as a guide for determining the amount of assistance:

First year: up to 75% of the difference between the amount of indirect costs under the old salary-based system and the new modified total direct cost-based system

Second year: up to 50% of the difference between the amount of indirect costs under the old and new system

Third year: up to 25% of the difference between the amount of indirect costs under the old and the new system

Conclusion and Update

The indirect cost system based on MTDC has been in effect for four years, and there is a general consensus that it has worked well. Although some projects retained the rate based on 85% of salaries for a short time, and some were granted "rebates" for a transitional period,* most projects were converted to the modified total direct cost system by the end of the first year.

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* The cost of these "rebates" to the University was as follows: in FY76 we appropriated approximately $27,000 to six accounts in three departments; and in FY77, we appropriated approximately $29,000 to eight accounts in three departments. (These amounts do not include the relief given to all those projects which remained at the previous rate until the next renewal of the contract.)

By 1978 it was clear that indirect costs had continued to rise much faster than direct costs, and a decision was made to increase the rate once again. A 64% rate went into effect on July 1, 1978 and the transition was handled in much the same fashion as the earlier change in the base: 1) beginning February 1, 1978, the 64% rate was incorporated into all new proposals; but 2) all awards based on proposals that were submitted at 52% and where the indirect cost rate was not negotiable were accepted with the lower rate; and 3) all existing grants and contracts were allowed to remain at the 52% rate until they were renewed or renegotiated to allow for the indirect cost rate increase. By July 1, 1979, about 90% of the projects were converted to the new 64% rate. Again, it is very difficult to assess the effect this increase has had on sponsored research at Princeton. After examining a large number of individual projects, the only generalization that can be made is that a few projects seem to suffer very little because the sponsoring agency simply increases the total grant to cover the new costs; some, with a constant dollar allotment from their sponsor, suffer a great deal; and the majority lie at various points in between.

As far as some of the unresolved issues are concerned (such as the assignment of secretarial costs and incentives for including graduate student AR's on contracts), various possibilities are still being explored. The AR question is of particular concern -- because outside support of graduate students has experienced such a sharp decrease in recent years -- but no final decisions have been made regarding the best way to resolve it. In general, it is clear that the severe financial pressures facing higher education, the decline in real support for sponsored research, and very sharp increases in indirect costs are longterm problems, which will continue to make some kind of regular review of our indirect cost system a necessity.

VI. SIMPLIFYING THE BUDGETING PROCESS

As we emphasized in the first volume of this report, the budgeting process we were describing was very much in the experimental state and was highly dependent upon previously existing data bases. We expected the system to change gradually over time as we learned more about what worked and what did not work, and, as time permitted, we expected to develop modifications to the data base which were tailored specifically to the needs of the new systems and procedures. One aspect of the process which did undergo considerable change was the procedure for collecting and summarizing budget data and determining the budgets for individual departments and offices each year. This section is concerned with those changes, with the new forms that were designed to simplify the annual budgeting process, and with our current procedures for analyzing and compiling budget data.

The majority of the forms for collecting and summarizing budget data which were developed and used during the early 1970s are described at length in two subsections of the first report.* The centerpiece of the procedures followed at that time was a unified budget package which was circulated early each fall to operating departments. That package contained ten computer forms to be reviewed and/or filled out and approximately 31 pages of corresponding instructions. The most important of these materials were the faculty staffing forms (Forms 1, 2, 3, 5A, 5B, and 5D) and the summary form for all operating expenses (Form 10).

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* See pages 49 - 78 and Appendixes A and B.

Four of the ten forms circulated to departments were to be filled out and returned to the central administration to be used to create or update data bases. In addition, each budgeting unit was required to submit a written memorandum describing their budget request as contained on those returned forms. Later in the fall certain forms were returned once again to the departments so that they could review the accuracy of the data. Then, subsequent to the final approval in January of the budget for the upcoming year, several forms were once again returned to the department to transmit the authorized budget for the coming year.

Although not described in the earlier version of this report, the processing of budget data continued into the spring with the circulation of typewritten sheets requesting departments to distribute their operating expense budgets from the lump-sum summary numbers contained on Form 10 to the various departmental accounts. When returned, this information was included with other updated information about new individual salaries, personnel benefit rates, and income for restricted accounts, and was sent back to the departments in mid-summer. This final budgetary package showed the detailed backup for the University general fund or restricted appropriations being made to departmental accounts. The package contained four computer schedules: A) account appropriation totals;

B) departmentally restricted income; C) individual salary data; and D) summary of salary data.

This system of processing budgetary information served the University well as a first attempt to cope with financial problems with the help of automated data bases. However, it became clear to those who processed and used the data that changes were desirable, mainly to reduce the amount of time spent filling out and reviewing -- and re-reviewing -- all those forms. Although the changes that have been made over the last seven years have been evolutionary in nature, rather than being dictated in detail in advance by a comprehensive master plan, there are certain underlying objectives which have guided us from the very beginning: we wanted more flexibility, and we wanted reduced and simplified paperwork.

The flexibility allows us to treat various departments, groups of departments, and types of expenditures within departments in different ways in the budgetary process. Although we continue to believe that major recommendations by the Priorities Committee should be made in the context of the overall University budget, we no longer feel compelled to collect all components of that budget in exactly the same way or at exactly the same time. More importantly, different categories of expenditures have to be reviewed in different ways, and this means that we need to be able to produce several different kinds of budget analyses.

We wanted less paperwork and simpler forms because we felt that an inordinate amount of time was being spent filling out routine information.

In addition to taking up a great deal of time that could be spent more effectively on other things, the annoyance of having to review the same form over and over again frustrated department heads and frequently made them less likely to think about and articulate major budgetary problems they anticipated for upcoming years. Moreover, because various forms appeared at different times during the year and because the existing reports classified information differently, it was difficult for anyone to learn to use these documents properly, and the information we got from department heads suffered as a result.

Although the specific changes made in both the teaching budget forms and the expense budget summary will be discussed below, the basic nature of those changes can be summarized fairly easily. First, in order to gain flexibility, we felt that our computer systems should be capable of sorting information at a fairly detailed level. This led us to use the account and object code classifications already in use for the University's accounting system.

Second, in order to reduce paperwork, we felt the best approach was to budget by exception. This meant that no response from departments was necessary except where changes in the real level of operations or changes in sources of funding were being proposed. As a result, the central administration would be responsible for estimating the continuing cost of the University base in most areas. Finally, in order to simplify paperwork, we attempted to shift, wherever possible, from manually marked-up computer forms listing detailed breakdowns of expenses to written memoranda describing general guidelines or total authorizations. Where it was not possible to eliminate the need for individual departments to deal with computer forms, we attempted to make the information as straightforward as possible. If unusual budgetary questions arose, more detailed and complicated subsidiary reports were available from the central administration.

In attempting to improve the quality and flow of information as described above, we followed several general rules in designing the automated data files and reports. First, we selected the strongest and most useful of the existing data files and built upon those. Second, we integrated various budget systems more thoroughly with each other, and with the payroll and bookkeeping systems, by using common definitions throughout. Third, we merged existing files and reports that had similar information which was being sorted in slightly different ways. Fourth, we relied more heavily on the computer to make routine extrapolations and to construct data bases from information already available in other machine-readable files.

The Teaching Budget

Our budgeting for faculty staffing has changed in three ways. First, the collection of data on the teaching budget has become separated from the collection of other operating budget data. Second, the forms used have dropped all reference to dollars and now express all information in terms of faculty full time equivalents (FTE's). Third, the cost for faculty staffing in the budget estimates is no longer based on the individual estimates by departments of the cost of each requested slot.

The separation of the teaching budget from the rest of the operating budget was one of the first changes from the old procedures. Because of the long lead time needed to make faculty staffing decisions and because these decisions have to be made early in the budgeting process so that offers can be extended during the normal faculty recruiting season, it is important that this information be collected and reviewed as early in the fall as possible. This is not true of much of the other information collected for the operating budget. In the fall of 1974, therefore, we separated the collection of teaching budget information from other operating expense information. This had a number of advantages: it allowed the chairmen of academic departments to concentrate their attention early in the fall on the faculty teaching budget; it removed the pressure from academic and other departments to concentrate on operating budget questions during the initial start-up period of the academic year, a time when the resources of most departments are strained to the limit; and it encouraged the central administration to view faculty staffing, particularly the cost estimates, more from the perspective of the University as a whole.

The old detailed faculty staffing Forms 1, 2, and 3 had concentrated on the distribution of individual salaries by type of fund and by department charged. This detailed listing of individual salaries then generated the operating expense estimates included on Form 10. In reality, however, departments were mainly being controlled in terms of the number of full time equivalents (FTE's) on general fund and other special teaching accounts. Unfortunately, this FTE information was carried only on summary forms by department (5A, B, and D). The Dean of the Faculty's Office was most anxious to make the teaching forms more understandable and more useful in the discussion and control of faculty staffing, all of which took FTE's rather than dollars as the unit of account . As a result of these concerns, we made some relatively minor changes in the existing data base for individual salaries and the corresponding changes in the payroll distribution and accounting systems, in order to be able to classify faculty teaching costs just as they had been classified previously on the Forms 1, 2, 3, and the 5 series. This left us free to convert all the information on the teaching budget forms themselves to an FTE basis. During the process of the conversion we were also able to include for the first time information on graduate student Assistants in Instruction (expressed on a faculty FTE basis) and total FTE authorizations. The new Forms 1, 2, and 3 together with a memorandum discussing the transition from the old forms and a description of the information contained on the forms are included in the appendix to this chapter.

Along with the change in the forms came efforts to reduce and simplify paperwork. As was pointed out in the covering memorandum from the Dean of the Faculty, we moved towards faculty budgeting by exception at the same time we changed the forms. Lengthy memoranda justifying budget requests are only required now when an extraordinary request is being made. The budget forms circulated to all departments are normally for reference only and are meant to serve as departmental work papers, rather than as source data which must be returned to the central administration. Typically, responses come back in the form of simple memoranda. Corrections, when necessary, can be transmitted on the regular change of status forms.

The teaching budget is now integrated into the overall University budget summaries in the following ways. The Dean of the Faculty makes a proposal to the Priorities Committee on the number of teaching budget FTE's to be authorized. The cost of that request (not counting salary increases, which are budgeted separately) is calculated by taking the current year cost for authorized FTE's and assuming that any new FTE's will have the same average cost as those currently authorized. If any additional information about the cost of an average FTE for the upcoming budget year is known by the Dean of the Faculty's Office, it would, of course, be included. However, it has been our experience that many of the factors which tend to change average FTE costs (such as the specific individuals who go on or come off leaves, deaths, resignations, etc.), while fairly unpredictable by specific component, usually tend to offset each other across the University as a whole. Therefore, the average cost of an FTE tends to move mainly in accordance with the University salary pool. Backup documents are maintained to enable the Dean of the Faculty's Office and the Controller's Office to review specific changes in the composition of the faculty when actual expenditures appear to be varying significantly from estimated costs.

We believe these changes, particularly the new forms, have been verysuccessful in helping to focus the attention of departments on FTE levels. They provide working documents which can be shared easily within the department since no salary information is included. Moreover, unlike the previous procedures, they do not force departments to make artificially premature decisions on recommendations for continuing appointments or leaves. These changes have taken much of the arbitrariness and frustration out of the faculty budgeting process.

The Operating Budget Summary

Over time it became clear that Form 10 and the expense budget Schedule A mentioned earlier had a number of problems. Although Form 10 contained budget information covering three years, there was no flexibility in the amount of detail which could be displayed. In particular, functional distinctions within a department could be made only if the source of funds were different. This was a disadvantage for academic departments which frequently wanted to distinguish between, for example, instructional expenses and departmental administration. There were similar problems in several large operating units which were also trying to keep track of several different kinds of staff and operating expenses. Using a single-page form seems simple, but the problems of trying to track changes when information is carried at such a summary level proved to be significant. As a result, an enormous amount of time was spent in discussions between the Controller's Office and various departments about which numbers belonged where, and why those numbers had changed.

Schedule A, on the other hand, carried information by account for general funds and University restricted funds. However, the information here was available for only one year so that it was difficult to view a department's operations over any time span. Moreover, from a data processing point of view, the two systems required two different data bases, each of which had to be maintained by the Controller's Office. Also, the non-salary information on each form had to be manually prepared and edited by the Controller's Office. Neither data base provided much flexibility in the amount of detail in which information could be entered and neither allowed for the automatic comparison of different versions of the forms. The departmental and group subtotals and summary totals by type of fund were not even the same for the two different forms.

The faults of these forms were accentuated by the further tightening of financial constraints which occurred in the mid-1970s. As the University's budget problems worsened, departments were expected to track general fund expenditures even more carefully than before. Since it was the accounting system that was providing departments with their monthly expenditure information, we felt that the budget forms should correspond as closely as possible to the account and object code expenditure classifications used in that accounting system. In addition, the Priorities Committee and the administration needed more accurate and detailed explanations of the changes between various estimates of the University budget. All of these developments argued for a more flexible budgeting system and one that was more fully integrated into the University's other large automated financial systems.

Beginning in the summer of 1975, the University began to make changes in the procedures used to develop the operating budget summaries. These steps are described in a series of memoranda issued by the Treasurer and the Controller. (The memoranda are included as an appendix to this chapter.) Some of the initial steps involved streamlining the process of distributing funds among operating accounts and eliminating the circulation of various computer forms. A more important step(first announced in a memorandum from the Treasurer dated October 29, 1975) involved a movement to budgeting by exception. Under this procedure, departments were no longer required to fill out Form 10 and send back a budget justification memorandum if they were not requesting any changes from their current level of operation (apart from the normal adjustments for inflation which were made without the departments having to request them). Instead, they were expected to review the assumptions under which we would be projecting their budget, and let us know only if they felt some other changes were necessary.

As these procedural changes were being made, the University was reorganizing the way it stored and processed budget data. In redesigning the computer files, we kept the file that stores current salary information, since this is the one used to generate the new teaching budget. As mentioned before, minor modifications were made in that file, however, so that information extracted for the operating budget summaries shows the charges for the teaching budget just as they are shown in the Forms 1, 2, and 3. In addition, the expense budget file was set up based on the object codes and accounts used by the University bookkeeping system as the basic level of detail, and was expanded to accommodate information for five fiscal years. Moreover, for the current and budget years, the file was designed to carry three different versions of the budget, in order to permit us to track changes in the budget over the course of the year. Programs were written so that the bulk of the information on the file could be loaded and manipulated without manual data entry. Budget information for the past year was accumulated on the file by automatically reading the accounting records. Current year salary costs were programed to be read from the individual salary file and an annualization program was written to create estimates of actual expenditures for the year after adjusting for any turnover in positions that had already occurred and for any known retirements or other personnel changes. Provision was also made to extrapolate automatically various types of non-personnel operating expenses from the current year into the budget year.

The appendix to this chapter contains the three most important expense reports which are used to construct and monitor the University budget. The expense budget report covers three years -- the past year is actual, the current year is budget, and a projection or budget for the upcoming year -- and contains information on expenditures from University general funds and restricted funds account by account, plus summaries of the sponsored research accounts. The salary summary report breaks down the salary expenditures by personnel class and by type of fund. Finally, the budget analysis report provides percentage and actual dollar differences from one year to the next and for different versions of the budget for the same year. This last report is especially important given the increased need to understand how the budget changes over time. The budget analysis program has flexible selection criteria so that the fields to be compared, the type of funds, the accounts, and the object codes may all be varied to address particular areas of concern to policymakers.

As a result of all these changes, the material circulated to the departments for operating budget purposes has been reduced significantly. Each summer, all departments receive a small budget package from the Controller's Office which describes the guidelines which were followed in setting their appropriations for general fund and restricted accounts. (A copy of the most recent memorandum appears in the appendix to this chapter.) Also included in this package is the one computer form which we continue to circulate routinely to all departments. This is Form D which lists the individual salaries for all non-hourly employees, with the projected distribution of those salaries among the various departmental accounts. Then, in the early fall, the Provost circulates a letter to all departments putting forward some general guidelines for the preparation of budget requests. (A copy of this letter is also included in the appendix to this chapter.)

The new systems and procedures seem to be working well. Although less information is routinely circulated to departments, more information is actually available and the Controller's Office has more time to review budgetary information personally with the major operating units and with smaller units with specific budgetary problems. When budget forms are reviewed under these circumstances, they are more easily related to previously authorized budgets and past and current information appearing on the various reports regularly provided to departments through the accounting system. Also, information on such areas as departmentally restricted income (which had previously been eliminated as an item routinely circulated) is available as it is needed, and normally transmitted in a memorandum which is both more complete and more understandable than previous forms.

The new systems have made many things possible. The professional and clerical time necessary to edit files for errors has been reduced significantly and the clerical time saved on data entry has been used to establish routine file monitoring. The ability to cross-reference forms when analyzing problems has been increased. Also, it is possible to differentiate by account on budgeting forms so that expenditures, such as administrative expenses within the academic departments, can be segregated in a way that was not possible under the old Form 10 system. Reporting information by account also makes it easier to develop meaningful budgetary classifications in large operating units, in that the computer backup to the budget can be very similar to the detailed presentations developed by these units as part of the Priorities Committee process. Finally, since the information is being processed centrally, the timing of the whole budget process can be controlled better. In particular, those elements of the budget that can be calculated with much greater accuracy later in the fall can be held off without having to wait to do the more routine extrapolations as well.

Conclusion

Budgetary procedures and systems now in use at Princeton are not particularly sophisticated, nor are they by any stretch of the imagination perfect. However, the changes we have made over the last seven years have enabled us to shift the complicated process of constructing a budget data base from the departments to the central administration. The quality of the data has been improved because there is more automation in the editing of files, and because the reports produced are in a more understandable format and can be more easily cross-referenced with other information. At the same time, heads of offices and departments have more time to analyze real budgetary problems and concerns because they spend less time reviewing piles of forms and mountains of instructions. In summary, the systems provide us with considerably more flexibility to address various budget areas in simple and straightforward ways.

Appendix VI - 1

Princeton University: DEPARTMENT Dean of the Faculty

INTER-OFFICE CORRESPONDENCE

To	Chairmen of Academic Departments and Programs	DATE	September 19, 1975
		SUBJECT	FACULTY STAFFING REQUESTS FOR 1976-77
FROM	Aaron Lemonick		

You have by this time received the Provost's memorandum dated September 17, 1975 entitled, "Budgeting for 1976-77." You have also, by this time, sat through at least three presentations of our budget difficulties and what we are trying to do to solve them. Let me spare you another one by simply treating Al Rees' memorandum as an introduction to this one.

This year, contrary to previous practice, you will not be receiving faculty staffing request forms from the Controller's Office nor will you return faculty staffing requests to the Controller's Office. The only faculty staffing request memorandum you will receive is this one. Your request, in the form of a memorandum to me, should reach this office by noon, October 3, 1975.

Enclosed with this memorandum are two copies, for your use, of revised Form 1, revised Form 2, revised Form 3, and Form 6. The first three are the new staffing forms being used this year in place of the ones you may remember from last year. I honestly think that they are a vast improvement. I hope you will agree. They are sent to you for your information; there is no need to return them to me. Because they are new forms, however, the information on them may in one or two instances be inaccurate either because of a programming error or an error in feeding data into the machine. If you have a question about any of the entries, or think they are mistaken in one way or another, you are most welcome to point out the mistake by sending one copy back with your corrections noted. We shall look at them and be back in touch with you to tell you if we agree (and to thank you for helping us purge yet another error).

Form 6 is a previously used form which attempts to summarize the department's teaching effort.

Your request memorandum should contain two parts; let me speak first to the first part. There is no need to submit an elaborate memorandum unless you are making an extraordinary request. An extraordinary request in these terms is defined as a request for more teaching FTE's in 1976-77 than you were authorized for the current academic year (1975-76) and requires a full justification. If the request is simply to seek again the same number of FTE's on the teaching budget as you were authorized this year, then all I shall need is a statement to that effect. There is another kind of "extraordinary request" you might make. You might find that you can actually do with fewer FTE's than you had this year. If that's the case, I would certainly appreciate knowing it.

As to the second part of the staffing request memorandum, regardless of whether you are making an extraordinary request for an increase in teaching budget, or whether you are requesting no change or even a decrease in teaching budget, I would like to have a list of the new appointments you will be seeking to make (using your best present guess as to the vacancies you will have in your teaching budget), giving the rank at which you will be seeking to fill the vacancy (full or Associate Professor, Assistant Professor, Lecturer or Instructor, visitor), and specifying the field.

I think that you are all aware that in fact we will almost certainly be required to cut the teaching budget for next year by some number of FTE's. Many of you have already been in to talk with the Deans and the Provost about such a possibility. It is not likely that all departments will be able to go into 1976-77 with the same number of FTE's that they were authorized in 1975-76. If cuts have to be made, you will certainly be informed as soon as we know. Furthermore, to the best of my ability to do so, I shall give you at least informal authorization to fill vacancies in November or in December. It will, of course, all depend on how quickly the Priorities Committee can do what will be a difficult job this year.

Let me add that the AI's will be handled separately a little later in the semester. I promise you that they will be dealt with before January, by which time you will have to know how many AI's you have been authorized in order to know about the support you will have for your incoming class of graduate students.

Attached you will find a sheet on which I have attempted to explain the new forms. You may also know that we are inviting your secretaries (and you if you would like to come) to a meeting to explain these forms, and "FTE's" on Friday, September 26, at 11:00 a.m. in McCosh 2.

I hope that this memorandum has not been overly long nor overly complicated. If you have any questions, please feel free to call me or Carol Thompson (2-3024).

AL:bg
Enclosure

NOTE: Staffing Request Memoranda are due in this office at noon, Friday, October 3, 1975.

STAFFING FORMS

THE FORMS

The three newly revised staffing forms and the function of each is as follows:

Revised Form 1: displays faculty staffing for the academic year just completed last June 30 (academic year 1974-75). This form contains data which (unless it contains errors) will no longer change since that year is over.

Revised Form 2: displays faculty staffing for the current academic year (1975-76) and should contain staffing data which includes all faculty appointed up to and including the date the form was run. This form will change during the current year as new people are hired, salary allocations are changed, or people leave. At the end of the year on June 30, 1976, it should stop changing and turn, overnight, into the new Form 1.

Revised Form 3: displays faculty staffing for next academic year (1976-77). This form is meant to describe the staffing for next year to the best of our present knowledge. This form will change markedly through the year as decisions are made, authorizations are given, appointments for next year are made, and resignations and terminations, reappointments and promotions take place.

Notice that in Form 3 the sheets are headed (upper left of the sheet):

Continuing: the sheets so headed include all those who, either because they have tenure or because they are hired on a three-year contract which has not expired, will be continuing next year, and about whom no decisions need be made in the current year.

Decision: these include all those faculty whose appointments, for one reason or another, end on June 30th and whom you might decide to reappoint, promote, rehire, etc. These are decisions which are to be made in the current year.

Termination: these (if you have any) list all those for whom June 30, 1976 is the end of their active association with Princeton because they are retiring at that point or are on a terminal appointment.

New Appointments: contains nothing at this point.

STAFFING FORMS

In what follows I shall attempt to explain the use and meaning of the columns on all the forms. (Each form - 1, 2, 3 - has a summary sheet as well.)

COLUMNS (corresponding columns on each of the forms are labelled and mean the same thing)

The forms seem self-explanatory to me probably because Linda Morse and I worked with them over the past several months. However, they may be less so for you. The simplest way to deal with these new forms is to tell you what the columns are meant to contain.

COLUMN A: gives Social Security number

COLUMN B: gives the last name of the person

COLUMN C: not now in use

COLUMN D: gives the appointment period

A means Academic year
F means Fall Semester
S means Spring Semester

COLUMN E: gives the percentage of duty during the period in Column D (Thus if someone is listed as F 100 this would mean 100% of the time in the fall, 0% of the time in the spring.)

COLUMN F: gives the percentage of an FTE for the year -- someone might for instance be listed as F 100 50, meaning 100% of the time in the fall semester, 0% of the time in the spring semester, or 50% of an FTE for the academic year. If all has gone well, the six percentages in the six columns G, H, I, K, L, M should add up to the percentage in Column F, as you will see below.

COLUMN G: gives that percentage of an FTE paid for by University general funds

COLUMN H: gives that percentage of an FTE paid for by University restricted funds of one sort or another

COLUMN I: gives that percentage of an FTE paid for by University leave funds

COLUMN J: gives the sum of the FTE percentages in Columns G, H, I and is the total percentage of an FTE which is on the teaching budget. The percentages in Columns K, L, M are not counted as part of the teaching budget of a department.

COLUMN K: gives the percentage of an FTE on leave without pay

COLUMN L: gives that percentage of an FTE paid for out of sponsored research funds

COLUMN M: gives that percentage of an FTE charged to some other department. Notice that in Column M (if you have anyone charged to another department) there are two numbers given. The first number is the percentage of FTE charged to the other department; the second number is the other department's code number.

COLUMN N: gives the year, on the June 30th of which, the person's appointment comes to an end for one reason or another -- whether by retirement or by the ending of the term of the appointment.

COLUMN O: is I think self-explanatory. It simply lists the person's special field.

September 1975

RUN DATE 09/12/78
FORM 1 VERSION 2.1

TEACHING BUDGET
PAST YEAR ACTUAL
1977-78

PAGE

*BIOLOGY

SOC SEC # A	LAST NAME B	APPT PD D	PCT OF DUTY E	PCT OF FTE F	GEN G	RST H	LEAVE W/ PAY I	TOT TCH BUD J	LEAVE W/O PAY K	RES L	CHARGED TO (DPT) M	TERM YR N	COMMENTS O
PROFESSOR													
	BONNER	A	100	100	50		50	100				88	DEVELOP / CELL
	COX	A	100	100	100			100				02	BIO CHEM GENET
	JACOBS	A	100	100	100			100				87	DEVELOP / CELL
	LISK	A	100	100	100			100				03	NEUROPHYS
	MAY	A	100	100	50			50				04	MTH ECOL/ASPHY
											50 680		RESEARCH BOARD
	STEINBERG	A	100	100		100		100				98	DEVELOP / CELL
ASSOCIATE PROFESSOR													
	GELPERIN	A	100	100	100			100				07	NEUROPHYS
	HORN	A	100	100	100			100				10	POPULATION BIO
	NEWTON	A	100	100	100			100				02	BIOCHEM
	TERBORGH	A	100	100	100			100				01	POPULATION BIO
ASSISTANT PROFESSOR													
	CLINE	A	100	100	100			100				79	DEVEL BIOLOGY
	COHEN	A	100	100	100			100				80	GENETICS DEV
	ENDLER	A	100	100			50	50	50			79	POP BIO & GEN/

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RUN DATE 09/12/78                                     TEACHING BUDGET                                        PAGE    2
FORM 1 VERSION 2.1                                    PAST YEAR ACTUAL
                                                          1977-78
*BIOLOGY
                                          PCT   PCT               LEAVE     TOT   LEAVE
                                    APPT  OF    OF                 W/       TCH    W/O        CHARGED   TERM
SOC SEC #  LAST NAME                 PO   DUTY  FTE  | GEN  RST  PAY  ||  BUD  || PAY  RES  TO (DPT)| YR    COMMENTS
    A             B                  D     E     F   |  G    H    I   ||   J   ||  K    L       M    |  N       O
---------  ---------------          ---   ---   ---  | ---  ---  ---  ||  ---  || ---  ---  -------  | --  ----------------
                                                     |                ||       ||                    |
ASSISTANT PROFESSOR      (CONT)                      |                ||       ||                    |
                                                     |                ||       ||                    |
           GOULD                     A    100   100  | 100             ||  100  ||                    | 78 ETHOLOGY
                                                     |                ||       ||                    |
           PATON                     A    100   100  | 100             ||  100  ||                    | 79 DEV NEUROBIOL
                                                     |                ||       ||                    |
           QUINN JR                  A    100   100  | 100             ||  100  ||                    | 80 BEHAV/MOL GEN
                                                     |                ||       ||                    |
           SANDERS                   A    100   100  | 100             ||  100  ||                    | 78 GENETICS
                                                     |                ||       ||                    |
           WITMAN III                A    100   100  | 100             ||  100  ||                    | 80 CELL-BIOLOGY
                                                     |                ||       ||                    |
LECTURER                                             |                ||       ||                    |
                                                     |                ||       ||                    |
           BOOZER                    F    100    50  |  50             ||   50  ||                    | 78 NUTRITION
                                                     |                ||       ||                    |
           BRUCE                     A     50    50  |  25             ||   25  ||       25           | 89 BIO CLOCKS
                                                     |                ||       ||                    |
INSTRUCTOR                                           |                ||       ||                    |
                                                     |                ||       ||                    |
           BUBECK                    A    100   100  | 100             ||  100  ||                    | 79 PLANT DEVEL
                                                     |                ||       ||                    |
           CHEUNG                    A    100   100  | 100             ||  100  ||                    | 79 MOLECUL BIO
                                                     |                ||       ||                    |
           WILLARD                   F    100    50  |  50             ||   50  ||                    | 78 ECOLOGY
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RUN DATE 09/12/78
FORM 1 VERSION 2.1

TEACHING BUDGET
PAST YEAR ACTUAL
1977-78

BIOLOGY

SOC SEC # A	LAST NAME B	APPT PD D	PCT OF DUTY E	PCT OF FTE F	GEN G	RST H	LEAVE W/ PAY I	TOT TCH BUD J	LEAVE W/O PAY K	RES L	CHARGED TO (DPT) M	TERM YR N	COMMENTS O
PURCHASED FROM OTHER DEPARTMENTS													
LECTURER													
	BUNTIN			51	51			51			125		BIOLOGY (PROF RES STAFF)

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RUN DATE 09/12/78                       TEACHING BUDGET                                      PAGE   4
FORM 1 VERSION 2.1                    PAST YEAR SUMMARY
                                           1977-78
*BIOLOGY
                          NUMBER     PCT                              LEAVE       TOTAL          LEAVE              CHGD TO
                            IN        OF                                W/       TEACHING          W/O                OTHER
                           RANK      FTE  |   GENL       RSTR          PAY  ||   BUDGET   ||       PAY        RES     DEPTS
                             C         F  |     G          H             I  ||      J     ||        K          L        M
                           ----     ----  |  ------     ------       ------ ||   ------   ||     ------     ------   ------
                                          |                                 ||            ||
PROFESSOR                     6     6.00  |    4.00       1.00          .50 ||     5.50   ||                            .50
ASSOCIATE PROFESSOR           4     4.00  |    4.00                         ||     4.00   ||
ASSISTANT PROFESSOR           8     8.00  |    7.00                     .50 ||     7.50   ||       .50
LECTURER                      2     1.00  |     .75                         ||      .75   ||                  .25
INSTRUCTOR                    3     2.50  |    2.50                         ||     2.50   ||
                                          |                                 ||            ||
                          ==============  |=================================||============||=============================
* DEPT FACULTY TOTAL         23    21.50  |   18.25       1.00         1.00 ||    20.25   ||       .50        .25      .50
(HOME BASED)              ==============  |=================================||============||=============================
                                          |                                 ||            ||
PURCHASES                     1      .51  |     .51                         ||      .51   ||
                                          |                                 ||            ||
                          ==============  |=================================||============||=============================
** DEPT TEACHING TOTAL                    |   18.76       1.00         1.00 ||    20.76   ||
(HOME BASED + PURCHASES)  ==============  |=================================||============||=============================
                                          |                                 ||            ||
                                          |                                 ||            ||
                          ==============  |=================================||============||=============================
*** DEPT TEACHING TOTAL                   |   18.76       1.00         1.00 ||    20.76   ||
(INCLUDING SPECIAL PGMS)  ==============  |=================================||============||=============================
                                          |                                 ||            ||
ASSISTANTS IN INSTRUCTION           5.50  |    5.50                         ||     5.50   ||
                                          |                                 ||            ||
                          ==============  |=================================||============||=============================
**** DEPT GRAND TOTAL                     |   24.26       1.00         1.00 ||    26.26   ||
(INCLUDING AI'S)          ==============  |=================================||============||=============================
                                          |                                 ||            ||
                                          |                                 ||            ||
AUTHORIZED FACULTY        ==============  |=================================||============||=============================
TEACHING BUDGET FTE                       |                                 ||    22.00   ||
                          ==============  |=================================||============||=============================
RUN DATE 10/16/78                                   TEACHING BUDGET                                          PAGE   1
FORM 2 VERSION 2.1                                CURRENT YEAR ACTUAL
                                                        1978-79
BIOLOGY
                                                PCT  PCT             LEAVE     TOT     LEAVE
                                          APPT  OF   OF                W/      TCH      W/O        CHARGED  TERM
SOC SEC #  LAST NAME                       PD   DUTY FTE  | GEN RST PAY  ||  BUD  ||  PAY RES    TO (DPT) | YR   COMMENTS
    A           B                           D    E    F   |  G   H   I   ||   J   ||   K   L        M     |  N      O
---------  ----------------               ---  ---  ---  | --- --- ---  ||  ---  ||  --- ---    -------  | --  ------------
                                                          |              ||       ||                      |
PROFESSOR                                                 |              ||       ||                      |
                                                          |              ||       ||                      |
           BONNER                           A   100  100  | 100          ||  100  ||                   ,  | 88 DEVELOP / CELL
                                                          |              ||       ||                      |
           COX                              A   100  100  | 100          ||  100  ||                      | 02 BIO CHEM GENET
                                                          |              ||       ||                      |
           HORN                             A   100  100  | 100          ||  100  ||                      | 10 POPULATION BIO
                                                          |              ||       ||                      |
           JACOBS                           A   100  100  | 100          ||  100  ||                      | 87 DEVELOP / CELL
                                                          |              ||       ||                      |
           LISK                             A   100  100  | 100          ||  100  ||                      | 03 NEUROPHYS
                                                          |              ||       ||                      |
           MAY                              A   100  100  |  50          ||   50  ||                      | 04 MTH ECOL/ASPHY
                                                          |              ||       ||            50 680    |    RESEARCH BOARD
                                                          |              ||       ||                      |
           NEWTON                           A   100  100  | 100          ||  100  ||                      | 02 BIOCHEM
                                                          |              ||       ||                      |
           STEINBERG                        A   100  100  |      50  50  ||  100  ||                      | 98 DEVELOP / CELL
                                                          |              ||       ||                      |
           TERBORGH                         A   100  100  | 100          ||  100  ||                      | 01 POPULATION BIO
                                                          |              ||       ||                      |
ASSOCIATE PROFESSOR                                       |              ||       ||                      |
                                                          |              ||       ||                      |
           GELPERIN                         A   100  100  | 100          ||  100  ||                      | 07 NEUROPHYS
                                                          |              ||       ||                      |
ASSISTANT PROFESSOR                                       |              ||       ||                      |
                                                          |              ||       ||                      |
           CLINE                            A   100  100  | 100          ||  100  ||                      | 79 DEVEL BIOLOGY
                                                          |              ||       ||                      |
           COHEN                            A   100  100  | 100          ||  100  ||                      | 80 GENETICS DEV
                                                          |              ||       ||                      |
           ENDLER                           A   100  100  | 100          ||  100  ||                      | 79 POP BIO & GEN/
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TEACHING BUDGET
CURRENT YEAR ACTUAL
1978-79

BIOLOGY

SOC SEC # A	LAST NAME B	APPT PD D	PCT OF DUTY E	PCT OF FTE F	GEN G	RST H	LEAVE W/ PAY I	TOT TCH BUD J	LEAVE W/O PAY K	RES L	CHARGED TO (DPT) M	TERM YR N	COMMENTS O
ASSISTANT PROFESSOR (CONT)													
	GOULD	A	100	100	100			100				81	ETHOLOGY
	PATON	A	100	100	100			100				79	DEV NEUROBIOL
	QUINN JR	A	100	100	100			100				80	BEHAV/MOL GEN
	SCHEDL	A	100	100	90	10		100				81	CELL BIOLOGY
	WITMAN III	A	100	100	100			100				80	CELL-BIOLOGY
LECTURER													
	BRUCE	A	50	50	25			25		25		89	BIO CLOCKS
	PHILPOTT	A	100	100	100			100				79	BOTANY
INSTRUCTOR													
	BUBECK	A	100	100	100			100				79	PLANT DEVEL

RUN DATE 10/16/78
FORM 2 VERSION 2.1

TEACHING BUDGET
CURRENT YEAR ACTUAL
1978-79

BIOLOGY

SOC SEC # A	LAST NAME B	APPT PD D	PCT OF DUTY E	PCT OF FTE F	GEN G	RST H	LEAVE W/ PAY I	TOT TCH BUD J	LEAVE W/O PAY K	RES L	CHARGED TO (DPT) M	TERM YR N	COMMENTS O
PURCHASED FROM OTHER DEPARTMENTS													
LECTURER													
	BUNTIN			50	50			50			125		BIOLOGY (PROF RES STAFF)

RUN DATE 10/16/78
FORM 2 VERSION 2.1

TEACHING BUDGET
CURRENT YEAR SUMMARY
1978-79

BIOLOGY

	NUMBER IN RANK C	PCT OF FTE F	GENL G	RSTR H	LEAVE W/ PAY I	TOTAL TEACHING BUDGET J	LEAVE W/O PAY K	RES L	CHGD TO OTHER DEPTS M
PROFESSOR	9	9.00	7.50	.50	.50	8.50			.50
ASSOCIATE PROFESSOR	1	1.00	1.00			1.00			
ASSISTANT PROFESSOR	8	8.00	7.90	.10		8.00			
LECTURER	2	1.50	1.25			1.25		.25	
INSTRUCTOR	1	1.00	1.00			1.00			
* DEPT FACULTY TOTAL (HOME BASED)	21	20.50	18.65	.60	.50	19.75		.25	.50
PURCHASES	1	.50	.50			.50			
** DEPT TEACHING TOTAL (HOME BASED + PURCHASES)			19.15	.60	.50	20.25			
*** DEPT TEACHING TOTAL (INCLUDING SPECIAL PGMS)			19.15	.60	.50	20.25			
ASSISTANTS IN INSTRUCTION		2.50	2.50			2.50			
**** DEPT GRAND TOTAL (INCLUDING AI'S)			21.65	.60	.50	22.75			
AUTHORIZED FACULTY TEACHING BUDGET FTE						22.00			

Appendix VI - 4

RUN DATE 09/21/77
FORM 3 VERSION 2

TEACHING BUDGET
BUDGET YEAR
1978-79

BIOLOGY

SOC SEC # A	LAST NAME B	APPT PD D	PCT OF DUTY E	PCT OF FTE F	GEN G	RST H	LEAVE W/ PAY I	TOT TCH BUD J	LEAVE W/O PAY K	RES L	CHARGED TO (DPT) M	TERM YR N	COMMENTS O
CONTINUING													
PROFESSOR													
	BONNER	A	100	100	100			100				88	DEVELOP / CELL
	COX	A	100	100	100			100				02	BIO CHEM GENET
	JACOBS	A	100	100	100			100				87	DEVELOP / CELL
	LISK	A	100	100	100			100				03	NEUROPHYS
	MAY	A	100	100	50			50			50 680	04	MTH ECOL/ASPHY
	STEINBERG	A	100	100		100		100				98	DEVELOP / CELL
ASSOCIATE PROFESSOR													
	GELPERIN	A	100	100	100			100				07	NEUROPHYS
	HORN	A	100	100	100			100				10	POPULATION BIO
	NEWTON	A	100	100	100			100				02	BIOCHEM
	TERBORGH	A	100	100	100			100				01	POPULATION BIO

RUN DATE 09/21/77
FORM 3 VERSION 2

TEACHING BUDGET
BUDGET YEAR
1978-79

BIOLOGY

SOC SEC # A	LAST NAME B	APPT PD D	PCT OF DUTY E	PCT OF FTE F	GEN G	NST H	LEAVE W/ PAY I	TOT TCH BUD J	LEAVE W/O PAY K	RES L	CHARGED TO (DPT) M	TERM YR N	COMMENTS O
ASSISTANT PROFESSOR													
	CLINE	A	100	100	100			100				79	DEVEL BIOLOGY
	COHEN	A	100	100	100			100				80	GENETICS DEV
	ENDLER	A	100	100	100			100				79	POP BIO & GEN/
	EATON	A	100	100	100			100				79	DEV NEUROBIOL
	QUINN JR	A	100	100	100			100				80	BEHAV/MOL GEN
	WITMAN III	A	100	100	100			100				80	CELL-BIOLOGY
LECTURER													
	BRUCE	A	50	50	25			25		25		89	BIO CLOCKS

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RUN DATE 09/21/77                                   TEACHING BUDGET                                            PAGE   3
FORM 3 VERSION 2                                      BUDGET YEAR
                                                        1978-79
BIOLOGY
                                       PCT   PCT              LEAVE   TOT    LEAVE
                                APPT   OF    OF                 W/    TCH     W/O        CHARGED   TERM
SOC SEC #   LAST NAME            PD   DUTY   FTE | GEN  RST  PAY || BUD || PAY  RES   TO (DPT) | YR     COMMENTS
    A           B                 D     E     F  |  G    H    I  ||  J  ||  K    L        M     |  N        O
---------   ----------------    ---   ---   --- | ---  ---  --- || --- || ---  ---   -------  | -- ----------------
                                                 |               ||     ||                     |
DECISION                                         |               ||     ||                     |
                                                 |               ||     ||                     |
ASSISTANT PROFESSOR                              |               ||     ||                     |
                                                 |               ||     ||                     |
            GOULD                 A    100   100 | 100           || 100 ||                     | 78 ETHOLOGY
                                                 |               ||     ||                     |
INSTRUCTOR                                       |               ||     ||                     |
                                                 |               ||     ||                     |
            BUBECK                A    100   100 | 100           || 100 ||                     | 78 PLANT DEVEL
                                                 |               ||     ||                     |
            CHEUNG                A    100   100 | 100           || 100 ||                     | 78 MOLECUL BIO
                                                 |               ||     ||                     |
            WILLARD               F    100    50 |  50           ||  50 ||                     | 78 ECOLOGY
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RUN DATE 09/21/77                                    TEACHING BUDGET                                                      PAGE   4
FORM 3 VERSION 2                                       BUDGET YEAR
                                                         1978-79
BIOLOGY
                                                PCT   PCT               LEAVE    TCT    LEAVE
                                          APPT  OF     OF                W/      TCH     W/O           CHARGED    TERM
 SOC SEC #  LAST NAME                     PD   DUTY   FTE  | GEN  RST  PAY  ||  BUD  ||  PAY  RES     TO (DPT) |  YR    COMMENTS
     A          B                          D     E      F  |  G    H    I   ||   J   ||   K    L         M     |   N     O
 ---------  ----------------              ---   ---   ---  | ---  ---  ---  ||  ---  ||  ---  ---    -------  |  --  --------------
                                                           |                ||       ||                       |
                                                           |                ||       ||                       |
 TERMINATION                                               |                ||       ||                       |
                                                           |                ||       ||                       |
 ASSISTANT PROFESSOR                                       |                ||       ||                       |
                                                           |                ||       ||                       |
                SANDERS                    A    100   100  | 100            ||  100  ||                       |  78 GENETICS
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RUN DATE 09/21/77                                          TEACHING BUDGET                                              PAGE    5
FORM 3 VERSION 2                                             BUDGET YEAR
                                                               1978-79
BIOLOGY
                                             PCT   PCT              LEAVE    TOT     LEAVE
                                       APPT  OF    OF                 W/     TCH      W/O      CHANGED   TERM
SOC SEC #   LAST NAME                  PD    DUTY  FTE  | GEN  RST  PAY  ||  BUD  ||  PAY  RES  TO (DPT) | YR   COMMENTS
    A              B                   D     E     F    |  G    H    I   ||   J   ||   K    L       M     |  N      O
---------   ----------------------    ---   ---   ---   | ---  ---  ---  ||  ---  ||  ---  ---  -------  | --  ----------------
                                                        |                ||       ||                     |
NEW APPOINTMENTS
```

RUN DATE 09/21/77
FORM 3 VERSION 2

TEACHING BUDGET
BUDGET YEAR SUMMARY
1978-79

BIOLOGY

	NUMBER IN RANK C	PCT OF FTE F	GENL G	RSTR H	LEAVE W/ PAY I	TOTAL TEACHING BUDGET J	LEAVE W/O PAY K	RES L	CHGD TO OTHER DEPTS M
CONTINUING									
PROFESSOR	6	6.00	4.50	1.00		5.50			.50
ASSOCIATE PROFESSOR	4	4.00	4.00			4.00			
ASSISTANT PROFESSOR	6	6.00	6.00			6.00			
LECTURER	1	.50	.25			.25		.25	
* DEPT FACULTY TOTAL (HOME BASED)	17	16.50	14.75	1.00		15.75		.25	.50
** DEPT TEACHING TOTAL (HOME BASED + PURCHASES)			14.75	1.00		15.75			
*** DEPT TEACHING TOTAL (INCLUDING SPECIAL PGMS)			14.75	1.00		15.75			
**** DEPT GRAND TOTAL (INCLUDING AI'S)			14.75	1.00		15.75			

TEACHING BUDGET
BUDGET YEAR SUMMARY
1978-79

BIOLOGY

	NUMBER IN RANK C	PCT OF FTE F	GENL G	RSTR H	LEAVE W/ PAY I	TOTAL TEACHING BUDGET J	LEAVE W/O PAY K	RES L	CHGD TO OTHER DEPTS M
DECISION									
ASSISTANT PROFESSOR	1	1.00	1.00			1.00			
INSTRUCTOR	3	2.50	2.50			2.50			
* DEPT FACULTY TOTAL (HOME BASED)	4	3.50	3.50			3.50			
** DEPT TEACHING TOTAL (HOME BASED + PURCHASES)			3.50			3.50			
*** DEPT TEACHING TOTAL (INCLUDING SPECIAL PGMS)			3.50			3.50			
**** DEPT GRAND TOTAL (INCLUDING AX'S)			3.50			3.50			

RUN DATE 09/21/77
FORM 3 VERSION 2

TEACHING BUDGET
BUDGET YEAR SUMMARY
1978-79

BIOLOGY

	NUMBER IN RANK C	PCT OF FTE F	GENL G	RSTR H	LEAVE W/ PAY I	TOTAL TEACHING BUDGET J	LEAVE W/O PAY K	RES L	CHGD TO OTHER DEPTS M
TERMINATION									
ASSISTANT PROFESSOR	1	1.00	1.00			1.00			
* DEPT FACULTY TOTAL (HOME BASED)	1	1.00	1.00			1.00			
** DEPT TEACHING TOTAL (HOME BASED + PURCHASES)			1.00			1.00			
*** DEPT TEACHING TOTAL (INCLUDING SPECIAL PGMS)			1.00			1.00			
**** DEPT GRAND TOTAL (INCLUDING AI'S)			1.00			1.00			

Princeton University: Department -- Treasurer

To Heads of Departments
and Offices

Date August 15, 1975

Subject Reducing Administrative
Workload and Saving
Paperwork

From Carl W. Schafer CWS

INTER-OFFICE CORRESPONDENCE

Ray Clark, the new Controller, and I are most anxious to do what we can within the areas of our responsibility to reduce the administrative workload of departments and offices and to save paperwork. These are worthwhile goals at any time, of course, but particularly so now due to the following factors:

1. The serious financial situation confronting the University has already required staff reductions in many departments and offices, and further reductions are almost surely going to be required. Anything which can be done to reduce administrative work will help us to live with reduced staffing levels.

2. The Office of the Controller itself has already undergone a substantial staff reduction in response to the budget crunch.

3. There are some areas (affirmative action, for instance) in which requirements imposed on the University from the outside are causing additional administrative work. Since the irreducible minimum of administrative effort needed to comply with government requirements and to carry out essential university functions has grown in recent years, it is particularly appropriate that other, less essential, paper flows be stopped.

The enclosed budgets represent a small step in what we hope is the right direction (other more significant steps will come later):

1. In past years, departments and offices having more than one general funds expense account have been asked to distribute the total funds allowed among the various accounts (and in some cases to project expected expenditures for the year ahead in various expense categories). The results of these distributions have been transmitted back to the Controller's Office in written form in past years. This year, we have skipped this step. Instead, the Controller's Office has distributed general funds to accounts roughly in accordance with past experience. If a department disagrees with this distribution, a simple phone call to Chris McCrudden will suffice to change

the distribution, and no memorandum from the department will be needed. Incidentally, if actual experience during the year should indicate that a redistribution is needed, a simple phone call will also take care of the matter at that later time.

2. We have eliminated one of the four budget schedules -- Schedule C, the summary of various types of employees by salary category. The information on this form has not seemed to be overwhelmingly useful to departments based on past experience. (Some further simplication of these forms is in the works, but the necessity to revise some of the computer programs has prevented complete implementation this year.)

I regret that it has taken an additional bit of paperwork to let you know about our efforts to save paperwork.

Enclosures
CWS:ep

Princeton University: DEPARTMENT -- Treasurer

To Heads of Departments and Offices

DATE October 29, 1975

SUBJECT Reducing Administrative Workload and Saving Paperwork - Salvo #2

FROM Carl W. Schafer CWS

INTER-OFFICE CORRESPONDENCE

In my memorandum of August 15, 1975, I indicated that the Controller and I had embarked upon a program to save as much paper work as possible. This memorandum deals with our second such effort.

In past years, departments and offices have received a weighty package of budgeting materials (including budget form 10) at this time of year, for the purpose of projecting budgets for the following fiscal year - in this case the fiscal year 1976-1977. This year, we will not be sending out the packages.

Instead, the Controller's Office will make projections of your department's non-faculty costs for next year based upon the following assumptions:

1. Unit income for endowed accounts will increase by 3.2% over the current year. (This is the estimate we have received from the Investment Committee of the Board of Trustees.)

2. The Office of Research and Projects Administration (ORPA) will make estimates of both government and non-government sponsored projects for your department. ORPA may be in touch with you for advice, or you are, of course, welcome to initiate a discussion with ORPA. If you foresee a substantial change in your level of sponsored research you should communicate this to ORPA without delay.

3. We will project no increases in staff, that is, existing staff levels will be carried forward into next year.

4. For non-computer operating expenses, your present budget will be carried forward one year adjusted to the extent possible for inflation. The current inflationary cost increase estimate is 7%, but this number could change if the economic outlook changes or if the Priorities Committee is unable to recommend a full allowance for inflation because of the University's financial situation.

5. As to computer charges, we will add a factor for any rate increase decided upon for next year. Changes in the level of computer use will be the subject of discussions with the Provost's Office in the spring.

In the case of academic departments, budget adjustments may be occasioned by changes in levels of teaching and sponsored research. In addition, academic departments will have the flexibility to reallocate funds from operating expenses to supporting staff, and vice versa.

The general budget situation for next year was described in the Provost's memorandum of September 17, 1975 to all departments and offices. In these bleak financial times, we would not expect that there could be any significant increase in most University activities. To the contrary, the Priorities Committee will be continuing this fall to look for all feasible ways of reducing expenditures. Nevertheless, if you wish to request an exception to the ground rules set forth above, (for instance, if you should wish to request an increase in staff), I would ask that you transmit a memorandum containing full justification to Assistant Controller Chris McCrudden (Floor 3, New South Building, Ext. 2-3294) no later than November 10, 1975.

Two other points:

First, I recognize that academic departments have just received their fiscal year 1975-1976 budgets for supporting staff and operating expenses, and that the special academic programs have not received their current year operating budgets yet (Aaron Lemonick and I are working on these now). In these cases, obviously, the deadline for exceptions to the 1976-1977 rules set forth above will be waived.

Second, in the case of certain large departments which are normally reviewed individually by the Priorities Committee (Library, Computer Center, Physical Planning and Facilities, etc.), the demise of form 10 will not relieve them of the necessity to prepare their own budget projections for the Priorities Committee's use, in consultation with the Provost's Office and the Controller's Office.

Finally, it should be noted that the passing of form 10 from the scene will eliminate an anomaly: there never were nine other budget forms.

CWS:ep

Princeton University: DEPARTMENT --Office of the Controller

To Heads of Departments and Offices

DATE August 10, 1976

SUBJECT Reducing Administrative Workload and Saving Paperwork - Salvo #3

FROM Raymond J. Clark
Controller & Associate Treasurer
RJClark

The enclosed budgets represent another step in the effort begun last year to reduce and simplify paperwork being circulated by this office.

In previous years you received a budget schedule (Schedule A) which summarized estimated expenses. This has been replaced with a new form which eliminates certain less essential items of information, and at the same time, summarizes past year's experience for comparison purposes. A number of departments felt that this would be useful.

Also, an old budget schedule (Schedule B) containing estimates of various items of departmental income has been eliminated. The information on this form has not seemed overwhelmingly useful to departments based on past experience. Should you at any time desire additional information about your departmental endowment or gift funds, please call Donna Nicholson (2-3295) of this office.

We look forward to your suggestions and cooperation during the upcoming year as we attempt to increase the usefulness of information which we circulate to you.

RJC:pjp

encs.

INTER-OFFICE CORRESPONDENCE

1979 - 1980 EXPENSE BUDGET

660 HEALTH SERVICES F01 AMOUNTS IN THOUSANDS OF DOLLARS

	PAST YEAR				PRIORITIES CURRENT YEAR				PRIORITIESBUDGET YEAR			
	SALARIES	BENEFITS + GRAD TUITION	OTHER EXPENSE	TOTAL	SALARIES	BENEFITS + GRAD TUITION	OTHER EXPENSE	TOTAL	SALARIES	BENEFITS + GRAD TUITION	OTHER EXPENSE	TOTAL
GENERAL FUNDS												
1000	578.0	95.1	1.4	674.5	620.4	106.7		727.1	619.0	106.4		725.4
1001	.4	.1	22.3	22.7			23.1	23.1			24.5	24.5
1002			84.9	84.9			81.5	81.5			86.4	86.4
1003			28.1	28.1			25.4	25.4			27.0	27.0
1007			288.8	288.8			275.8	275.8			292.3	292.3
1009			26.4	26.4			26.9	26.9			28.5	28.5
1010			19.4	19.5			17.0	17.0			18.0	18.0
1011	.1		14.3	14.3			16.9	16.9			17.9	17.9
1012			16.2	16.2			16.2	16.2			17.2	17.2
1013			10.0	10.0			10.0	10.0			10.6	10.6
1014							10.0	10.0			10.6	10.6
1054			1.1	1.1			1.5	1.5			1.6	1.6
* TOTAL	578.4	95.2	512.9	1,186.5	620.4	106.7	504.2	1,231.2	619.0	106.4	534.4	1,259.9
RESTRICTED FUNDS												
2000							2.3	2.3			2.4	2.4
2008							4.6	4.6			4.8	4.8
* TOTAL							6.9	6.9			7.3	7.3
NON-GOVT SPONSORED			.5	.5								
**DEPT TOTAL	578.4	95.2	513.4	1,187.0	620.4	106.7	511.1	1,238.1	619.0	106.4	541.7	1,267.1

ACCOUNT NAMES FOR DEPT 660

1000	STAFF SALARIES
1001	ADMIN EXPENSES
1002	IN-PATIENT EXPENSES
1003	CLINIC EXPENSES
1007	STU MED BENEFIT PLAN
1009	ATHLETIC INJURIES
1010	LABORATORY EXPENSES
1011	SEX EDUCATION
1012	X-RAY EXPENSES
1013	MED CENTER PAYMENTS
1014	MEDICAL EXPENSES
1054	COMPUTER CHARGES ADM
2000	J D HIBBEN FD
2008	STUART JOHN '00 FUND

DETAIL MAY NOT ADD TO TOTALS DUE TO ROUNDING

REPORT WRITTEN:
01/16/79

PRINCETON UNIVERSITY

1979 - 1980 SALARY SUMMARY

F01 AMOUNTS IN THOUSANDS OF DOLLARS

660 HEALTH SERVICES

	PAST YEAR					PRIORITIES CURRENT YEAR					PRIORITIESBUDGET YEAR				
	GENERAL FUND	UNIV RESTR	NON-GOVT SPON	GOVT SPON	TOTAL	GENERAL FUND	UNIV RESTR	NON-GOVT SPON	GOVT SPON	TOTAL	GENERAL FUND	UNIV RESTR	NON-GOVT SPON	GOVT SPON	TOTAL
201															
204	436.1				436.1	495.2				495.2	492.2				492.2
205	42.1				42.1	44.8				44.8	46.3				46.3
206	49.1				49.1	48.8				48.8	48.8				48.8
207	49.5				49.5	20.9				20.9	20.9				20.9
208	1.5				1.5	10.8				10.8	10.8				10.8
210	.1				.1										
* TOTAL	578.4				578.4	620.4				620.4	619.0				619.0

PRINCETON UNIVERSITY
BUDGET ANALYSIS REPORT
AMOUNTS IN THOUSANDS OF DOLLARS

DEPARTMENT/ ACCOUNT	NEW HISTORY PAST(1) DOLLARS	NEW CURRENT PRIORIT DOLLARS	NEW HISTORY PAST(1) PERCENT	NEW CURRENT PRIORIT DOLLARS	NEW BUDGET PRIORIT DOLLARS	NEW CURRENT PRIORIT PERCENT	NEW BUDGET PRIORIT DOLLARS
660 HEALTH SERVICES F01							
GENERAL FUNDS							
1000	674.5	52.6	7.8	727.1	1.7-	.2-	725.4
1001	22.7	.4	1.8	23.1	1.4	6.1	24.5
1002	84.9	3.4-	4.0-	81.5	4.9	6.0	86.4
1003	28.1	2.7-	9.6-	25.4	1.6	6.3	27.0
1007	288.8	13.0-	4.5-	275.8	16.5	6.0	292.3
1009	26.4	.5	1.9	26.9	1.6	5.9	28.5
1010	19.5	2.5-	12.8-	17.0	1.0	5.9	18.0
1011	14.3	2.6	18.2	16.9	1.0	5.9	17.9
1012	16.2			16.2	1.0	6.2	17.2
1013	10.0			10.0	.6	6.0	10.6
1014		10.0	100.0	10.0	.6	6.0	10.6
1054	1.1	.4	36.4	1.5	.1	6.7	1.6
*TOTAL GENERAL FUNDS	1,186.5	44.7	3.8	1,231.2	28.7	2.3	1,259.9
RESTRICTED FUNDS							
2000		2.3	100.0	2.3	.1	4.3	2.4
2008		4.6	100.0	4.6	.2	4.3	4.8
*TOTAL RESTRICTED FUNDS		6.9	100.0	6.9	.4	5.8	7.3
NON-GOVT							
4001	.5	.5-	100.0-				
*TOTAL NON-GOVT SPON FUNDS	.5	.5-	100.0-				
**DEPT TOTAL	1,187.0	51.1	4.3	1,238.1	29.0	2.3	1,267.1

Princeton University: DEPARTMENT --Office of the Controller

INTER-OFFICE CORRESPONDENCE

To Chairmen of Academic
Departments & Programs

DATE August 14, 1978

SUBJECT 1978-79 Initial Budget
Appropriations

FROM Christopher McCrudden CMc

This memorandum explains the 1978-79 initial budget appropriations appearing on the July, 1978, bookkeeping statements which you will be receiving shortly. Appropriations are made for all University general fund accounts and for University restricted accounts which are supported by endowment, term gifts, or special funds.

For certain of these accounts, the appropriation is based on specific salary information. The detail of that information is included on the attached Salary Budget Form, which lists the salary and distribution for faculty, professional research staff, professional technical staff, administrators, and office staff. This reflects information received by this office from the Dean of the Faculty's Office and the Personnel Office through July 10, 1978. Should any changes to this information be necessary, the appropriate paperwork should be forwarded through the Dean of the Faculty's Office or the Personnel Office in the usual manner. The lump sum estimates listed for lab, maintenance, and shop personnel, special payments, student wages, purchased/sold labor, and graduate assistantships can be adjusted, if necessary, by direct communication with this office. When account appropriations are based on salary charges, personnel benefits at the rate of 22.5% on all non-student wages have also been included in your initial appropriation.

The guidelines for specific accounts are as follows:

1. Faculty and Graduate Assistants Account (account number 1000) - This includes the funding for all teaching appointments received as of July 10, 1978, from the Dean of the Faculty's Office. As additional appointments are made within the department's FTE teaching allotment, this account will be adjusted to cover the additional salary and personnel benefits costs. Also included in this account is an estimate of the cost of your total Assistant in Instruction FTE allotment. The actual charges for your graduate appointments may vary slightly from this estimate since it is based on an average use of pre and post general students. Finally, an estimate of the amount of tuition charged to general funds for Assistants in Research is included.

2. Computer Accounts (account numbers 1051-1054) - Appropriations to the 1051 account are at the levels currently authorized by the Office of Research and Project Administration. Appropriations for accounts 1052-1054 have been authorized by the Provost's Office.

3. All Other General Fund Accounts - The total in these accounts equals your allowance for departmental administrative expenses as described in the June, 1978, memorandum from Neil Rudenstine, Aaron Lemonick, and Carl Schafer. The allowance has been distributed among the various accounts in accordance with your instructions to this office.

4. Restricted Fund Accounts - Appropriations normally represent the full amount of new endowment earnings available or the prescribed amount of term gift to be made available. For departments having sponsored research last year, unrestricted research appropriations have been made to account number 2950. The amount is equal to the collections from two points of the indirect cost rate for all FY78 research projects charged at the full rate. Unspent funds in the 2950 accounts will carry forward to future years.

Please feel free to contact Craig Richmond (2-3295) if you have any questions about the initial budget appropriations.

CMc:pjp

Princeton University: DEPARTMENT Provost

To Heads of Departments and Offices DATE September 18, 1978

SUBJECT Budgets for 1979-80

FROM N. L. Rudenstine

INTER-OFFICE CORRESPONDENCE

I am writing to provide you with a set of budget guidelines for the coming year.

While our general financial situation remains very sound, we continue to be faced with the prospect of budget deficits which can only be controlled by extremely careful management of our resources. The Priorities Committee report of January projected a near-balanced budget (an $85,000 deficit, to be very precise) for 1978-79. Since January, we have had some extremely favorable financial developments - including increased endowment earnings and another record-breaking Annual Giving campaign - but these have been fully offset by increased expenses, due in large part to the unexpectedly high rate of inflation. The actual deficit for 1977-78 was considerably larger than we had expected in January, and it will not be easy to stay within the 1978-79 budget unless we make persistent and exceptional efforts to control all expenses; I hope very much that everyone will help in this effort. I appreciate enormously the efforts of this past year, and the cooperative spirit which has characterized them.

The outlook for fiscal year 1980 is also rather sobering. Last year's Priorities Committee report projected a possible deficit for 1980, and this year's Priorities Committee will have to work very hard to produce recommendations that will keep us in balance for 1980. In general, the following guidelines should be taken as reflecting our most realistic planning expectations for 1979-80:

With respect to the size of the Faculty, we envisage no significant change from the current year. Consequently, departments should expect to adhere to the staffing levels already established. Additions to the Faculty will in all probability be possible only if we can achieve subtractions elsewhere. If a department believes it has a compelling case for an increase in FTE's, then the rationale for the increase should be described in a memorandum to Dean Lemonick as part of the department's total staffing request. Dean Lemonick is forwarding detailed guidelines on this subject in a separate memorandum.

The current year operating budgets for academic departments, including non-academic staffing, were circulated early in the summer. Next year's budgets will be established this coming spring.

The major non-academic (as well as academic) budget units which normally make presentations to the Priorities Committee will do so again this year. Associate Provost Richard Spies will be in touch with each unit to arrange a meeting time.

In the smaller non-academic departments we do not expect to be able to provide for any increases in staff or for increases in operating budgets except what is necessary to cover the effects of inflation. Any requests for additions to staff or increases in operating expenses (beyond inflation) must be evaluated in the light of the less favorable financial situation which now exists; the rationale for such requests should be described in a special memorandum addressed jointly to Mr. A. J. Maruca, Vice President for Administrative Services (220 Nassau Hall) and Associate Controller Christopher McCrudden (3 New South Building). The deadline for such memoranda is October 13, 1978.

If you have any questions, Carl Schafer, Dick Spies and I will be more than glad to help in any way we can. Do not hesitate to be in touch with us.

Neil Rudenstine

N. L. Rudenstine

NLR/jl

APPENDIXES TO THE REPORT

A Financial Primer

Financial pressures are not new to Princeton. They have been a vexing and persistent worry since the earliest days of the College of New Jersey, when President Aaron Burr served for three years without salary. And they have been addressed in an astonishing variety of ways, beginning in the 1750s with a lottery—for which Benjamin Franklin printed the tickets—and several extended fund-raising junkets which took college officials as far as Scotland and the West Indies.

The Princeton of today would be unrecognizable to those resourceful—and hardy—early fund-raisers. The University now has an enrollment of 4,400 undergraduates and 1,400 graduate students. It employs 4,200 individuals: over 900 faculty members; 500 members of the research and technical staffs; 100 members of the professional library staff; and 2,700 members of the administrative and supporting staff, including secretaries, coaches, food service workers, and scores of people in other job categories. Its campus extends over 2,600 acres and consists of more than 130 buildings. This year, Princeton's operating budget will exceed $155 million (including $45 million for the Plasma Physics Laboratory, a government-sponsored research facility, whose 1,000 staff members are engaged in the development of nuclear fusion as an energy source).

Although the size and complexity of Princeton have changed enormously, the need to overcome serious financial challenges has not. This "primer" describes some of today's challenges and explains some of the ways the University has tried to meet them.

How do national economic conditions affect Princeton?

The economic facts of life are well known to any person who has tried to match a slowly rising income with swiftly rising living expenses. Most will also be aware of the effect that recent national economic pressures have had on Princeton's budget. Some of these pressures have taken the form of imposed cost increases, such as higher social security taxes and occupational safety and health standards which require detailed record keeping and expensive modification of some facilities. Others are related to the devaluation of the dollar, which has increased the cost of equipment and library materials purchased abroad. But plainly the most important external pressure is inflation, reflected in an increase of more than 80 percent in the Consumer Price Index over the past 10 years. This increase in prices has been evident in skyrocketing energy and food costs and has put real strains on the living standards of Princeton faculty and staff. The University, in turn, has sought to alleviate these strains as much as possible with pay increases.

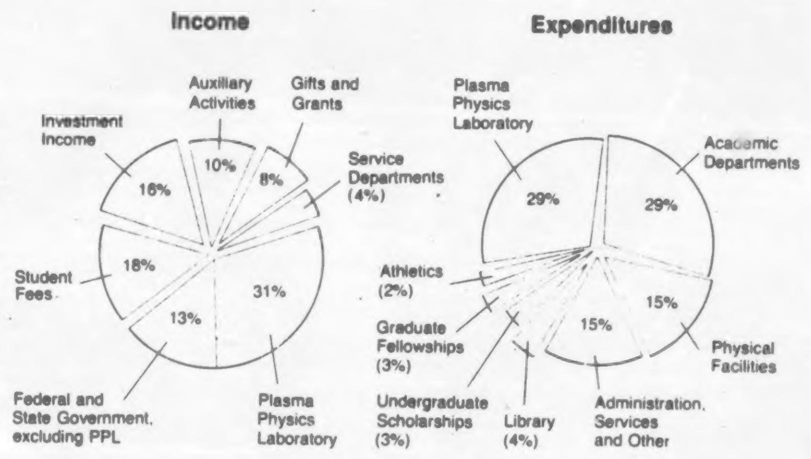
A university is a heavily labor-intensive enterprise; education and scholarship, as practiced at Princeton, require a degree of personal attention and interaction that does not lend itself to mechanization. While some uses of audio-visual materials are helpful in certain teaching situations, they cannot be carried very far before they begin to have a significant impact on crucial faculty-student contact, which is at the heart of Princeton's educational program. "Automated" production methods are simply not adaptable, for example, to preceptorial teaching or to the writing of a thesis or the preparation of a piece of scholarly research. Education is a "handicraft" industry; the result is that the costs of educational services always tend to rise even more rapidly than the costs of production goods, and that is exactly what has been happening. Over the past decade, while prices in general have risen about 80 percent, the most widely accepted price index for higher education shows a more than 90 percent increase in costs over the same period.

A university is a heavily labor-intensive enterprise; education and scholarship, as practiced at Princeton, require a degree of personal attention and interaction that does not lend itself to mechanization.

What has been particularly devastating about this recent increase in University expenses is that it has not been accompanied by an equally rapid increase in income. The securities markets have been extremely unstable, and declines in the real value of securities have reduced the real value of the University's endowment assets.

University Budget

Operating budget income and expenditures for 1978.



General economic and business conditions also have affected the amount of money available for educational appropriations from federal and state governments. At the federal level, support of basic research—especially in the sciences and engineering—has declined significantly over the past decade. Excluding the Plasma Physics Laboratory, the real value of outside support for sponsored research at Princeton declined approximately 32 percent between 1968 and 1977. And this is true despite the fact that Princeton continued to have one of the highest success rates in the country in getting proposals funded. A dramatic decrease has also occurred in the external funding of graduate student fellowships: in 1968–69, outside fellowship support was received by 788 graduate students, compared with only 326 in 1977–78. At the state level, the New Jersey legislation which provides support to independent institutions is still funded at its 1972 level, some $5 million less than what it would be had it simply kept pace with inflation.

Poor economic conditions also can have an adverse effect on the inclination—and the ability—of individual or corporate donors to make contributions. The threat of recession, rapid inflation, undependable securities markets and similar circumstances do not constitute an optimum climate for raising private contributions. Fortunately, Princeton's level of private giving to date has been very reassuring: Annual Giving has increased 36 percent since 1972–73, and the University has recently completed an extremely successful major development effort.

There are other circumstances, including unpredicatable national policy decisions, which can have a serious effect on Princeton's budget. Just this past year, for example, the U.S. Department of Labor proposed a change in longstanding policy to require the equalization of monthly retirement payments to men and women who are equally situated. Depending on the level at which the department decides future pension payments must be set, the effect on the University's budget could be as much as $200,000 a year. Retirement legislation, regulations governing equal opportunity in athletics and access for the handicapped, and many other federal actions all have the potential of increasing costs or reducing real income. Although the intent of these actions is admirable, the financial implications are considerable.

What are the consequences?

The combination of sharply increased expenses and less rapidly expanding resources will inevitably cause a budgetary squeeze. That is exactly what has happened at Princeton over the past 10 years; deficits in the University's operating budget have totaled $5.1 million. Since the total of University operating budgets over this 10-year period equals more than one billion dollars, the deficits for the decade represented less than one-half of one percent of these budgets. And since capital gifts (which are ordinarily not counted as annual operating income but are generally invested as endowment) totaled approximately $110 million during this same period, the $5 million total shortfall was absorbed without serious dislocation. Nonetheless, the $5 million in deficits had to be taken from funds that otherwise would have been functioning as endowment, earning dividends and interest for the operating budget year after year. All such losses are serious, and the University must clearly do everything reasonable to minimize or eliminate them.

What has happened at other universities?

It is at least a bit reassuring to look briefly at the experience of some other universities because Princeton remains so strong by comparison. The University's deficits to date, although disturbing, do not compare in magnitude with those of several other Ivy League universities where inroads into capital have been massive. As a result, one such university has cut back drastically on faculty positions, scholarships and library acquisitions. Another has made sharp reductions in those budgetary items supported by unrestricted funds. And still another has had to make enormous efforts to reduce deficits which were already running at several million dollars annually and threatening to grow to tens of millions of dollars each year.

One institution in the Northeast eliminated 100 faculty positions and withdrew from intercollegiate football only to realize that its real income was about to decline again and expenditures would have to be reduced still further.

State universities also have had to cope with financial shortfalls. One institution in the Northeast eliminated 100 faculty positions and withdrew from intercollegiate football only to realize that its real income was about to decline again and expenditures would haye to be reduced still further. Appropriation increases at many other state universities have not kept pace with inflation; most public institutions have had to limit hirings and promotions, to reduce equipment purchases and to defer maintenance and new projects and programs.

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How would Princeton be affected by continued, or substantial, withdrawals from its capital funds?

Princeton has done very well in its efforts to achieve an equilibrium between operating expenses and income while sustaining the quality and scope of its programs. As suggested, the withdrawals in recent years represent only a small fraction of the University's capital funds. (And at no time have they come from the endowment, which has not been invaded at all to cover deficits.) Nonetheless, every dollar needed to meet a deficit is a dollar no longer available to generate income. Thus, the consequences of any reduction in the income-producing capability of the endowment and other capital funds over the longer term would be extremely troubling because of their effect on every aspect of the life of the University.

The effect of decreased investment income on salaries and benefits would be particularly worrisome. In order to attract and keep the most talented faculty members—who will be in great demand no matter what job prospects generally may be—Princeton must offer salaries and benefits which are attractive, competitive, and at least partially responsive to increases in the cost of living. Clearly, Princeton cannot weaken its determination to hire only the best people available, nor can it increase significantly the demands on the existing faculty without eroding the overall quality of the University and without jeopardizing such special—and costly—characteristics as preceptorials and a heavy emphasis on undergraduate independent work.

In the administrative and supporting areas, although we need to strive to spend only the minimum essential amount on these activities, there is a limit to the economies that can be achieved without seriously damaging the ability of the staff to carry out its many responsibilities. When budgets are very tight, the pressure on administrative and support personnel often increase. Offices try to meet the demands on them with fewer resources, competition for scarce funds increases, more time must be spent raising money, and so on. Recently, of course, complying with burgeoning governmental regulations also has added to the administrative burden.

Another large portion of income from endowed funds is used for scholarships and fellowships (see box on page 4). Increases in tuition that outpaced the growth of endowed and other funds supporting student aid would seriously jeopardize Princeton's ability to continue enrolling outstanding individuals without regard to their economic circumstances. The quality of the University and the value of the educational contribution it is able to make depend directly on the presence here of students who bring to the campus different perspectives and diverse backgrounds. The educational mission of the institution would be seriously impaired if Princeton could no longer continue to reach out for the best minds and the most promising individuals, wherever they may be found.

Drawing on funds that otherwise could function as endowment would also seriously threaten the University's ability to continue to meet other critical commitments over the longer term. The library, for example—at the center of scholarly and student life—has experienced skyrocketing costs, due in large measure to dramatic increases in the costs of books and periodicals. Even if the library were funded at a level reflecting average inflation but not allowing for these special cost increases, it would lose ground in terms of holdings and book accessibility.

The Department of Athletics has also been affected by financial stringencies. In recent years it has been seeking to sustain the quality and to expand the scope of its existing intercollegiate program—for women as well as men—while at the same time extending its lively and highly popular intramural programs to an increasingly wide range of sports. Limited funding for both these activities could seriously reduce the opportunities all members of the community now have to participate in athletic and fitness activities.

Although there have been strenuous efforts in recent years to pare down expenditures in the physical facilities area, Princeton has been careful not to defer maintenance which, if neglected, would only cause much greater hardship and expense later on. But the specter of significantly increased maintenance expenses into the future looms large. Princeton's physical plant grew by about 80 percent during the 1960s, and, although until now those buildings have required little attention, it is expected that substantial investments in their upkeep soon will be necessary as major building systems begin to wear out. Although some consolidation of space may be required in the future, excessive frugality in this area would endanger a very important resource.

In short, it is clear that continued or increased deficits could force reductions in important areas of operation, and that such reductions would threaten Princeton's ability to sustain excellence in critical aspects of its educational program. It is also clear that, despite the unrelenting pressures of recent years, Princeton remains fiscally very sound—in large measure because it has carefully husbanded and utilized those resources provided over the past to help underwrite the future. However, if the University is to maintain its educational quality, it must continue to preserve and expand its financial capital, while using as efficiently as possible those resources available for expenditure in any given year.

Princeton's Endowment

Princeton's endowment provides tangible evidence of more than 230 years of generosity and commitment on the part of its alumni and other friends. From the very first years of the college, when a founder declared, "The principal thing we now want is a proper fund to enable us to go on with this expensive undertaking," it was obvious that the health and vigor of the institution depended on the existence of such a "proper fund," built up from donations, which would furnish Princeton with the financial foundation it needed to fulfill its educational objectives.

Today the University's endowment is valued at just about $500 million. All of it is invested—approximately 70–80 percent in common stocks and the remainder in fixed-income securities. Last year its earnings provided 23 percent of Princeton's income (excluding the Plasma Physics Laboratory). That is approximately the same proportion of the University's income which is provided by tuition; without such a generous endowment, with its proportionate earnings, tuition would have to be nearly double what it is now to maintain existing programs.

Over the course of this century the value of Princeton's endowment has increased enormously. From less than $4 million in 1902, it grew to $52 million in 1948, $132 million in 1958 and $425 million in 1968. A significant portion of this growth has been accomplished through the addition of new gifts; typically, donations will increase the endowment by one percent each year. But the increase is also a result of appreciation in the value of the endowment: rather than spend the total return on endowment each year—which includes dividends on stocks, interest on bonds and appreciation in the market value of the securities—the University has been spending only dividends and interest. This has usually meant that an amount equal to four to five percent of the market value of the endowment has been available to help meet current expenses, while the principal has been allowed to appreciate in anticipation of future needs.

Just how much of the return should be spent to meet current needs and how much should be set aside for future generations of Princetonians? Determining a prudent balance has been the subject of considerable debate, and different universities have come to different conclusions. On the one hand, spending too large a fraction of endowment earnings reduces the amount remaining to be reinvested, thus making it much more difficult to support the University's total program 10 or 20—or 100—years hence. On the other hand, spending too small a fraction deprives the current program of vital resources while reinvesting more than is necessary to keep up with expected increases in costs.

Although the trustees believed that Princeton's policy of spending all dividends and all interest had generally provided just about the right balance between present and future needs over many years, they decided this past fall to explore approaches under which the amount of income available for spending would be more stable and predictable. Expressed in terms of percentage change from the prior year, the variations from one year to the next over the past two decades have ranged from no change at all to an increase of 13 percent. Clearly, variations of this magnitude make forecasts of University income and, consequently, budgeting extremely difficult.

Another reason for reconsidering the policy was related to the University's recent decision to delegate the day-to-day management of its endowment to four professional investment managers. The managers have been asked to select securities so as to produce a total return which averages 10–11 percent per year. However, no requirement of current income (i.e., a certain annual level of dividends and interest) has been imposed on the managers, simply because it is important that they be able to exercise their own best judgments concerning the way to achieve the stipulated general goal. Thus, the possibility exists that all of the managers might, at some point in the future, be simultaneously investing in either very high or very low-yield securities. Such changes in investment strategy, which would be perfectly consistent with Princeton's over-all investment policies, would produce wide swings in dividends and interest received from year to year.

Therefore, last fall the trustees appointed a subcommittee to study the University's present policy. The approach which the committee recommended, and which the trustees adopted at their January 1979 meeting, is designed to strike a reasonable balance between current and future needs, while at the same time reducing the uncertainties of the old formula and insulating the new investment managers from any conceivable pressures to produce immediate high returns from dividends and interest rather than pursuing the best long-run total return.

The new policy, subject to continuing review in future years, provides for annual six percent increases in the income from each endowed fund spent in the operating budget. The plan is based on a total return objective of 10–11 percent, which the trustees formally adopted in December 1977 when they appointed the new investment managers, and the current annual spending rate of 4–5 percent of market value. Spending endowment income at this rate should result in "plowing back" six percentage points per year of the total return, on average, if the stated investment objective is attained over time. (The amount "plowed back" adds to the market value of the endowment, and will help protect the real purchasing power of the fund in future years.)

The new rule probably will not result in spending more income over a period of time than would have been provided under the old policy, nor is it likely to result in the spending of capital gains. However, it is expected to produce a more stable and predictable income stream.

Princeton's budgeting process

Basic decisions concerning the level of expenditures for different purposes in any given year are made in the budgeting process. In the 1960s, when it was clear that recent years of relative affluence in University finance were coming to an end, and that the gap between expenditures and available funds would widen, a number of important revisions in that process were made at Princeton.

Perhaps the most significant of these was the establishment of the Priorities Committee. One of six charter committees of the Council of the Princeton University Community, the Priorities Committee is charged with advising the president on the budget for the next fiscal year and with considering long-range plans for resource allocation. Besides recommending "priorities," the members of the committee are also expected to serve as important

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two-way channels of communication with the wider Princeton community.

Because the procedures which lead to the committee's final recommendations are such a vital part of the budgeting process, it is useful to examine the way the committee operates in some detail before considering the kinds of recommendations that have been made.

There are 16 regular members of the committee: three administrators serving ex *officio* (the provost, who is chairman; the dean of the faculty; and the financial vice president and treasurer); six faculty members (including at least one from each academic division and one non-tenured member); four undergraduates; two graduate students; and one member of the non-faculty staff.

The arduous and time-consuming meetings of the committee customarily begin in mid-October and continue at roughly a twice-a-week pace until the December holidays. The sessions before Thanksgiving are usually devoted to detailed reviews of major budgetary items, such as faculty staffing and salary increases, research support, the library and Computer Center, athletics, central administration, student aid and so on. The University official responsible for each major area generally meets with the committee to discuss the budget requests that have been made. The committee does not attempt to arrive at conclusions during this period, preferring to wait until all requests have been reviewed before making the decisions about the budget that it is going to recommend. The committee also usually conducts at least one open meeting each fall when any member of the University community may address an item of particular concern.

Invariably, the requests described to the committee add up to an amount far in excess of what can be accommodated. The committee weighs the various requests, considers likely levels of income, explores possible cutbacks and comes up with a tentative set of recommendations based on the members' collective sense of the University's priorities. Over the holidays, a draft report based on these recommendations is prepared.

The committee reassembles in January to review its recommendations and to put them in final form for transmittal to the president. The committee also makes its report available to the CPUC and to the wider University community. Following discussion with the committee, the president transmits his own budgetary recommendations to the Finance Committee of the Board of Trustees and then the full board at its regular January meeting.

The Priorities Committee has been very successful. Its carefully reasoned and well-considered recommendations have been accepted in their entirety each year by the president and the trustees, and the committee members have helped to increase understanding of Princeton's financial situation in the entire community. Because they work closely with the Finance Committee, they are aware of the trustees' concerns and are also able to keep the board informed about their own deliberations. Clearly, much of Princeton's ability to respond to financial problems in a measured and comprehensive way can be attributed to the careful work and good counsel of the committee and to the determination of its members to serve the best interests of the University.

In its recommendations over the past few years, the Priorities Committee has called for reducing expenditures in some areas (and for increasing expenditures in others), and for increasing income. This has been done in an effort to address existing financial challenges and to prepare for the economic stresses of the future. The following sections discuss some of the steps already taken in carrying out the committee's recommendations.

(Continued on page 4)

Sponsored Research and Indirect Costs

Sponsored research funds represent a significant portion of Princeton's income. In 1977–78, the Plasma Physics Laboratory accounted for about $43 million of a $145 million budget. Other externally sponsored research funds totaled approximately $21 million, and supported 278 projects in the natural sciences, 208 in engineering and the applied sciences, 90 in the humanities and social sciences and 32 projects in other areas.

These funds support both the research itself and the auxiliary functions necessary to its performance, including facilities, administrative activities, associated equipment and research and technical staffs. Since one of the essential characteristics of a university is that the processes of instruction and research are closely intertwined, especially at the graduate level where the two frequently occur simultaneously, it follows that important aspects of the educational program—including laboratory and independent work at the undergraduate level—would not be possible without materials and personnel acquired and supported by sponsored research projects.

Because instruction and investigation are so closely linked, it is difficult, in assessing costs, to make a precise separation between time spent in "research" and time spent in "teaching." Nonetheless, the University attempts to arrive at equitable charges for the research supported by outside sponsors. These charges consist of the "direct" costs of the project (i.e., those expenses which can be readily identified and charged to a particular research enterprise with a reasonable degree of accuracy and without an inordinate amount of accounting) and the "indirect" costs (i.e., expenses that are necessary to support the overall research effort but are difficult to assign specifically to each individual project).

Examples of direct costs are the salaries of those working directly on the project, associated benefits, tuition fees for graduate students and equipment.

Indirect costs fall roughly into five categories:

- Buildings (physical plant operation and maintenance, including energy costs; depreciation of buildings; allowance for equipment use);
- Departmental administration (secretaries, telephone costs and the like);
- Academic administration (services provided by the offices of the dean of the faculty, the Graduate School, the University Research Board, the Office of Research and Project Administration, etc.);
- Library
- General administration and expenses (president, provost and other financial and administrative offices).

Princeton collects indirect costs (also known as "overhead") through the application of an indirect cost rate to the direct costs incurred by each project. Expressed as a percentage of the direct costs, the indirect cost rate is set each year on the basis of the actual cost experience of previous years. For fiscal year 1979 the indirect cost rate has been set at 64 percent; it is estimated that total indirect cost recoveries will be $8,013,000.

Since sponsored funds are restricted to the support of well defined projects, each based on a formal proposal with a precise budget, some important research needs cannot always be met through this mechanism. Among these needs are support for new initiatives, for young faculty just beginning their research careers and for some equipment. In an effort to meet some of these needs, the Priorities Committee last year recommended that $150,000 be allocated from general funds, on a prorated basis, to departments engaged in sponsored research.

Although Princeton has over the years been very successful in obtaining research contracts, competition for funds is severe and there remains a great deal of uncertainty each year about the level of funding which will be attained. In addition, the grant application process has been making increasing demands on the time of investigators and the burgeoning number of regulations and reporting requirements associated with the receipt of funds are worrisome to many. A major concern of the research community—investigators and sponsors alike—is that the administrative burdens involved in seeking, renewing and accounting for funds not be allowed to grow, thereby limiting further the amount of time available for the research itself.

How has Princeton reduced expenditures?

Princeton's commitment to do a limited number of things, but to do them well, is by now a widely accepted standard at the University. Although this principle is easy to state, it is far from easy to execute. Instead of depending on undifferentiated, across-the-board cuts, it requires a painstaking assessment of the full range of the University's programs so that reductions can be made by curtailing or eliminating carefully selected activities. Some examples of the reductions that have been made in recent years follow:

Central administration. Notwithstanding the pressures of an increased work-load and a growing demand for services, a continuing effort has been made to control, and even to reduce, expenditures in the areas of academic and general administration, central services, physical plant and food services. Economies have been effected primarily through a reduction in staff (mainly accomplished by attrition), and have occurred in two major stages. Between 1971 and 1972, 68 positions were eliminated, and in 1975 a further reduction of 53 jobs was made. Although every attempt is still being made to leave vacated jobs unfilled, there is obviously a point at which further administrative reductions would seriously hamper the ability of the University to function effectively.

Academic departmental administration. Covering costs ranging from telephone bills to secretarial salaries, this area includes all operating expenses and administrative salaries in academic departments which are paid out of general funds. (It does not include teaching salaries or expenditures paid from sponsored research money.) Because these expenses had more than doubled between 1967 and 1974, an extensive review was conducted. The review led to a reduction in the general level of expenditures and to the development of a formula which related these budgets more closely to the instructional and research loads of each department, thereby distributing funds more equitably among departments. There is no doubt that these cuts caused real problems for many departments, but it is generally agreed that they were both necessary and consistent with actions taken in other budget areas.

Facilities. Substantial reductions have been made in recent years in the budget for the physical plant. The grounds do not receive as much attention as they once did; it takes longer to get minor repair work done; some interior painting and furniture repairs have been deferred; and snow removal is slower and less extensive than many wish. Although care has been taken not to eliminate any essential maintenance or to allow the physical plant to deteriorate in any structural way, the results of these reductions frequently cause inconvenience. While it is generally felt that the decisions have been economically sound, and consistent with the overall educational goals of the University, it is also recognized that the need for maintenance is increasing as the facilities built in the 1960s age. (See box on major maintenance expenses.)

Athletics. The activities of the Athletic Department have increased substantially in recent years—with expansions in women's sports, in intramural activities and in intercollegiate contests. Nevertheless the Athletics budget of most recent years has merely kept pace with inflation.

Energy. As is obvious from figures in the adjacent column, despite significant reductions in consumption, the increase in energy costs over the past decade has been truly astounding. The reductions in consumption have been accomplished in part through a campus-wide energy conservation program which entails such measures as temperature-level restrictions and electrical-use cutbacks, and in part through a computer-controlled heating and air-conditioning system. Operational last fall, the computer system, will eventually regulate 38 administrative and academic buildings on the main campus.

Computer Center. Several reductions in the Computer Center budget over recent years have been accomplished, primarily through a host of relatively small steps, such as reducing the number of night operators, removing equipment that is not heavily used and lowering paper costs. Although none of these actions has been painless, they have been taken because they will not have any major impact on the ability of users to get their basic computing work done, an essential goal if Princeton is to maintain modern programs of instruction and research.

What has Princeton done to increase its income?

The other half of Princeton's effort to balance its budget has to do with increasing income, and the University has taken several different kinds of initiatives to augment this side of the income statement.

Raising tuition and fees. The largest single source of income that is under University control is, of course, tuition and other student charges. Tuition has risen steadily and substantially in the past few years because the actual cost of education has climbed so steeply, and because other sources of income have, as discussed earlier, lagged behind inflation. These increases have been offset at

(continued on page 5)

Undergraduate financial aid: Where does the money come from, and how is it distributed?

In 1977–78, Princeton undergraduates received a total of $4.8 million in scholarship aid. State and federal government funds accounted for 26 percent of this figure, outside scholarships (such as National Merit awards) for 10 percent, and University Yearly Scholarships (those given each year by various classes and alumni clubs) for 4 percent. The rest—or 60 percent—was provided from income earned on endowed scholarship funds. These endowments, which have been given over the years to enable students of limited means to attend Princeton, now contribute to the support of nearly 90 percent of all students receiving scholarship aid.

Princeton is committed to meet the demonstrated financial needs of its students. Although it is impossible to guarantee that the University will always be able to meet the needs of all students offered admission, Princeton has, in fact, managed to achieve that goal in recent years, despite increases in charges, and the University is determined to make every effort to continue to do so in the future. Such a practice is expensive; it is possible only because all students who receive financial aid—and their families—are asked to join with the University in bearing the burden of financing their education. Therefore, scholarship funds are allocated only *after* a parental contribution has been determined with the help of a formula developed by the College Scholarship Service (used by all Ivy Group schools) and a level of student "self-help" has been determined, to be met through a combination of loans and term-time and summer employment. At present, students who apply for scholarship assistance are expected to contribute annually about $1,500 toward the cost of their education from summer and term-time employment. (The academic year work expectation translates into roughly 10 hours of work per week.) Students must also be willing to finance between $1,000 and $1,300 of the year's expenditures through loans offered under favorable terms. Scholarships are then provided to make up any remaining gap between anticipated total expenses for the year and the sum of the parental contribution and the "self-help" expectation. The size of the average undergraduate scholarship in 1978–79 is $3,340.

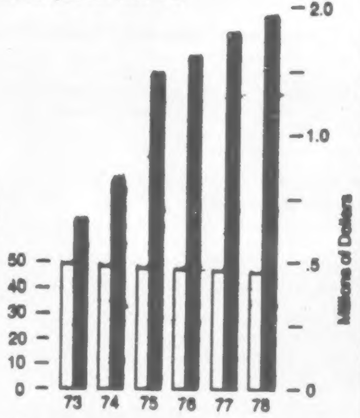
Over the past few years, as tuition and fees have risen, the parental contribution, the "self-help" expectation and scholarship assistance have all increased. In the period since 1970–71 (the year in which our present system of keeping financial aid records was adopted), the relative burden of scholarship aid versus "self-help" has varied—with the latter increasing somewhat faster during the earlier years, and the former increasing at the greater rate more recently. However, this year scholarships account for a larger proportion of financial aid than ever before: the average scholarship now constitutes more than 72 percent of the average aid award, as compared to 71 percent in 1970–71.

In any discussion of financial aid and endowed scholarship funds, it is important to remember that, in a sense, every Princeton student receives a scholarship. The full tuition charge covers only about one-half of the true cost of an undergraduate education at Princeton, while the remainder is provided by income from Princeton's endowment and other sources of funds.

Energy

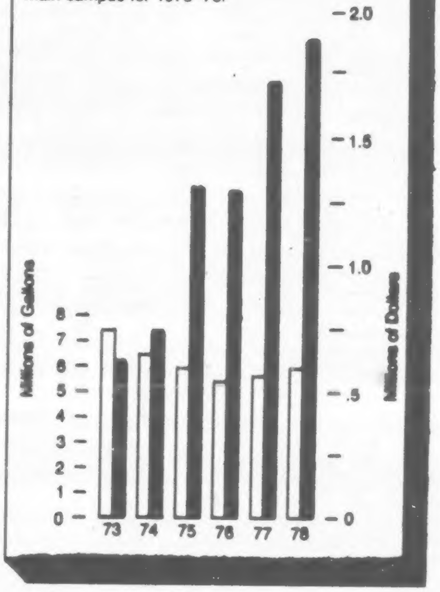
Electricity

Consumption and cost on main campus for 1973–78.



Fuel oil

Consumption and cost on main campus for 1973–78.



Princeton by parallel increments in the student aid budget that have helped students and families to meet added costs. The tuition increases have been in line with actions at other comparable universities, averaging nine percent a year over the past five years. Although tuition is certainly high today, it is roughly the same percentage of median family income as it was in the 1950s and 1960s. Moreover, even students who do not receive financial aid, and who are therefore paying the full tuition fee, are still covering only about one-half of the total cost of their Princeton education.

Raising more outside money. Princeton has worked hard and with marked success to persuade alumni and other friends, corporations and foundations, to continue—and the increase—their support. The University's recent development program raised $127.2 million dollars—of which $70.3 million was added to the endowment, $33.6 million went for renovation and construction of facilities and $23.3 million was used for programs. In addition, Annual Giving last year exceeded $5 million for the second straight year, setting an all-time record of $5,392,000. Annual Giving Dollars, which have been donated by alumni and other friends of the University each year since 1940, provide a special margin of flexibility for the University because they are entirely unrestricted: they can be used wherever they are most needed in any given year.

Developing new sources of income. In recent years, Princeton has explored possibilities for increasing income from non-traditional as well as traditional sources. One illustration of this effort is the recently established Events Office, which makes dormitories and other facilities available to educational or other nonprofit groups who wish to hold meetings on the campus, particularly in the summer. Another example of a new source of income is the Princeton Forrestal Center, a 1,600-acre multiple-use real estate development adjacent to the James Forrestal Campus that includes provision for research and office facilities, a conference center, housing and a shopping area as well as permanent open space. The Princeton Forrestal Center, and Palmer Square Inc. (in which the University holds a controlling interest) represent long-term efforts on the part of the University to increase income while at the same time encouraging the attractive and compatible developments of neighboring areas.

What other steps is Princeton taking?

The answer to this question is, of course, that planning for the future goes on all the time, in a variety of ways. The Priorities Committee each year tries to look more than one year into the future, and this year the committee and other University bodies will resume work early in the spring semester to try to find ways to cut the base of the budget. The fundamental problem is that while the University's sources of income have been rising at an average rate of roughly six percent a year and are not likely to increase more rapidly, the University's aggregate expenditures have been rising at approximately seven percent annually and are likely to continue to grow at that level. Not surprisingly, projections made on this basis show a discouraging pattern of steadily increasing deficits. What is most worrisome is that a projection of the budgetary effects of hypothetical reductions in salary pools, large increases in student charges, and deferral of major maintenance expenses shows that the adoption of such measures would make the budget only slightly better than balanced. Each of these hypothetical steps would have serious implications for at least some segment of the University community, and taken in combination they would affect the health and vitality of the institution as a whole. Thus, it seems better to attack the long-range budget problem through a systematic effort to reduce the base of the University's budget, rather than by looking only (or even primarily) at the more immediately flexible elements of the budget such as salary levels and student charges. By addressing these budgetary concerns now, the University hopes not to have to react precipitously later, when it would have less time and flexibility to proceed with care and deliberation.

Planning for the future is also going on in a number of other ways. The trustees recently adopted a new endowment income spending policy which is designed to provide greater stability and predictability for that component of income, while maintaining a responsible balance between present and future needs. (See box.) And the provost, in consultation with the president, the board and the faculty, has been engaged in a forward planning effort to forecast the University's major needs for new funds over the next five to 10 years. The preliminary conclusions of this study have been distributed to the wider University community through the *Princeton Weekly Bulletin* (6 November 1978) and will continue to be refined over the next few months.

Finally, the University is carefully monitoring all budgets, and scrutinizing any new obligations that might entail a long-term demand on resources.

How can each individual help?

The quality—and the soundness—of the University depend not only on budgetary decisions, as important as they are, but also on the sense of community that exists on the campus and beyond. It is essential that there be a shared commitment to common goals. It is equally important that there be a broad understanding of the challenges that stand in the way of achieving those goals.

This primer has been prepared so that every member of the Princeton community can be aware of the actions that have been taken already and those which still need to be taken to cope with the financial pressures besetting Princeton. The one final step that remains in providing an introduction to the University's financial circumstances is a description of the components of the budget itself. Therefore, the following section describes each component and shows the actual dollar figures for 1977–78, along with current projections for 1978–79 and 1979–80.

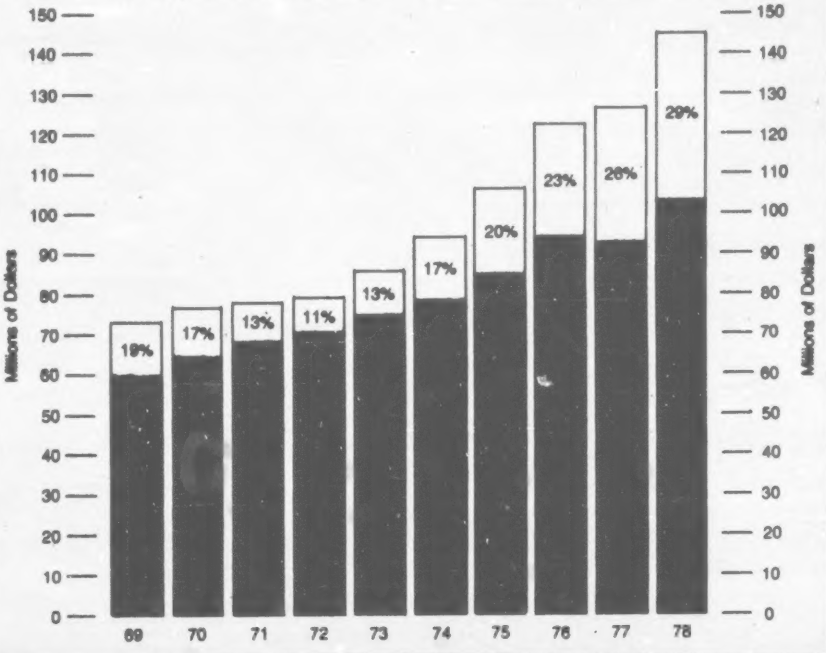
(continued on page 8)

How does Princeton cover major maintenance expenses?

The Princeton campus covers approximately 2,600 acres of land and contains more than 130 buildings—some of which are over 200 years old. The cost of maintaining this physical plant, and of modernizing it when necessary, is enormous. Moreover, unlike many other large expenses, major maintenance cannot be budgeted on a regular annual basis, since repair needs are uneven. In one year, five large buildings on campus may need new slate roofs; in the next, a few relatively minor patching jobs could take care of all necessary roof repairs. Gymnasium floors, kitchen facilities in dormitories and other similar refurbishing projects are not regular expenses; they must be paid for in a single year, but the repairs will last for many. If the University had to assign these major capital outlays to the single year in which actual repairs were made, the operating budget would fluctuate unreasonably. Therefore, in order to smooth out the effect of these differential outlays, major maintenance expenses are paid as they occur from a reserve fund separate from the operating budget. The operating budget itself then pays back the reserve fund over a five-year period, at 20 percent of the total each year. Consequently, the impact of large renewal and replacement costs, while not lessened, is spread out to reflect more accurately the average annual cost of maintaining Princeton's campus.

Expenditures

Annual expenditures for 1969–78. The unshaded areas show the percentage of the total annual expenditures accounted for by Princeton-Pennsylvania Accelerator and Plasma Physics Laboratory.



Components of the Operating Budget

Income

(in thousands of dollars)	1977–78 Actual	1978–79 Current Estimate	1979–80 Projection
1. Investment Income	23,441	26,712	28,691
2. Student Fees			
a) Undergraduate tuition	20,481	22,302	24,440
b) Graduate tuition	6,582	7,093	7,823
c) Other	528	528	617
Subtotal	27,591	29,923	32,880
3. Gifts and Grants (non-govt)			
a) Sponsored projects	2,685	2,709	2,709
b) Other	9,076	9,236	9,676
Subtotal	11,761	11,945	12,385
4. Federal and State Government			
a) Sponsored projects	63,202	66,715	72,100
b) Other	3,004	3,123	4,283
Subtotal	66,206	69,838	76,383
5. Auxiliary Activities			
a) Athletics	856	660	660
b) Dorm and Food Services	9,829	10,114	10,655
c) Rental housing	2,599	3,052	3,261
d) Other income	2,106	2,129	2,383
Subtotal	15,390	15,955	16,959
6. Service Departments			
a) Computer Center	3,134	3,284	3,316
b) Other	2,469	2,703	2,986
Subtotal	5,603	5,987	6,302
Total	149,992	160,360	173,600
Less Interdeptmtl Transactions	5,431	5,758	6,122
Grand Total	144,561	154,602	167,478
Summary of Sponsored Projects			
a) Direct Costs	58,569	61,411	65,696
b) Indirect Cost Reimb.	7,318	8,013	9,113
Total	65,887	69,424	74,809

1. **Investment income.** Consisting primarily of earnings on the University's endowment fund, this line is, however, not the same as the investment income actually earned in a particular year, for two reasons: (1) the income is spent with a 13-month lag, i.e., the investment income which will be spent in the current fiscal year (1 July 1978–30 June 1979) was earned during the 12 months ended 31 May 1978; and (2) income restricted to the use of a particular department or program is counted in the operating budget—on the income side as well as the expense side—only as it is spent. (Thus, for instance, in a particular year some departments may be spending endowment income earned in earlier years while others may be saving some of their currently available endowment income for use in future years.) Investment management expenses are deducted from gross income before recording the investment income shown in the table.

Also included in this line is the income received from the investment of all "current funds." Funds received by the University from any source are invested from the time they are received until they are actually spent. The income generated by the investment of most of these funds is considered unrestricted income for the operating budget.

The Princeton Forrestal Center, a major real estate development adjacent to the Forrestal campus, has been treated as an investment (similar to the purchase of common stock), and the income is included in this line also.

2. Student Fees

a) Undergraduate tuition. This line represents tuition fees paid by all undergraduates. The full tuition per student is shown even if a portion of it is being paid from scholarship or loan funds, or from proceeds of student employment. In estimating this line an allowance is made for expected attrition of students during the year, as well as for returning students admitted in January.

b) Graduate tuition. This is the full tuition paid by graduate students, even though a portion of it may be covered by University or outside fellowships. Again, allowances are made for attrition and spring readmissions.

c) Other. The largest component of this category is application fees at both the undergraduate and graduate levels. Also included are a number of miscellaneous fees such as late payment fines and course change fees.

3. Gifts and Grants (non-government)

a) Sponsored projects. These are mainly research projects sponsored by outside groups, such as corporations, foundations and individuals. (An example is the research sponsored by the American Cancer Society in the Department of Biochemical Sciences.)

b) Other. This category encompasses all other spendable gifts and grants from foundations, corporations and individuals. The largest single component is Annual Giving, which provides unrestricted operating funds to the University. The figure used for Annual Giving in the operating budget differs slightly from the announced campaign total because the campaign totals include pledges while the budget summaries include only the actual cash received. Pledges met after 1 July are counted as income for the operating budget of the following year, the year in which the cash is actually received.

4. Federal and State Government

a) Sponsored projects. These are research projects sponsored primarily by the federal government. The largest single project is the Plasma Physics Laboratory, a government-sponsored research facility which is exploring the use of fusion for the production of power. In addition, however, many other University departments in all divisions receive government funds for the conduct of research by their faculty.

b) Other. Most of this money is for student aid at both graduate and undergraduate levels. Although the bulk of the receipts are from the federal government, the state of New Jersey also provides approximately $300,000 per year.

5. Auxiliary Activities

a) Athletics. This income consists principally of football and basketball gate receipts, together with broadcasting revenue, receipts from sale of ticket books and the like.

b) Dormitory and Food Services. Room and board fees paid by both undergraduate and graduate students are included here, together with receipts from such diverse dining operations as Prospect, employee cafeterias, catering and the University's guest facility, Palmer House.

c) Rental housing. This is rental income from the more than 1,000 University-owned houses and apartments which are rented to faculty, staff and married graduate students.

d) Other income. This category includes income from rental of commercial properties (such as the building at 92 Nassau Street housing the bus station and several office buildings at the Forrestal Campus). Income from the University's Summer Events Program is included on this line.

6. Service Departments

a) Computer Center. Income to the Computer Center is received from other University departments, both academic and administrative, as well as from sponsored research projects and outside sources. About half of this income comes from University users spending general University funds; the other half comes from sponsored research projects and outside users.

b) Other. This consists of receipts by the printing and duplicating shop, the University stockrooms and machine shops and other central services.

Interdepartmental Transactions. These represent payments by one University department to another. For example, if the Chemistry Department purchases computer services, the dollars concerned show up as both an expenditure of the Chemistry Department and a receipt by the Computer Center. To avoid double counting in the University budget totals, such interdepartmental transactions are deducted before arriving at the grand totals of income and expenditures.

Summary of Sponsored Projects. The sponsored project funds shown above on lines 3.a) and 4.a) may also be divided between direct costs and indirect cost reimbursements as they are here (see box on "Sponsored Research and Indirect Costs"). The expenses themselves are shown on the expenditure table, with the direct charges recorded in the academic departments or programs where the research is being done—the University department or PPL—and the indirect costs recorded in the administrative departments where those costs are actually incurred—the Library or Physical Plant.

Expenditures

1. **Academic Departments and Programs**

a) Instructional costs.

1) Faculty, academic year. This line represents the "teaching budget," and includes both full-and-part-time faculty. (Faculty salaries charged to research projects are included on line 1.b) below.)

2) Teaching assistants. This line shows the cost of graduate students holding appointments as assistants in instruction. Their tuitions are paid for them and they receive a stipend as well. Both stipends and tuitions are included here as a cost of instruction.

b) Other salaries, expenses and benefits. Included here are all the other costs of operating academic departments and programs: faculty summer salaries (charged to research projects or other restricted funds), other faculty salaries charged to research projects, the stipends and tuitions of assistants in research and other costs of sponsored research in academic departments and programs. Also included here are the operating expenses of these departments—from salaries of secretaries and other supporting staff to the purchase of computer time and paper clips.

2. **Plasma Physics Laboratory.** The costs of the Plasma Physics Laboratory are underwritten almost entirely by the U.S. Department of Energy. Included here are all the direct costs of PPL, including costs of maintaining buildings and other supporting services where those are paid directly by the laboratory.

3. **Undergraduate Scholarships.** Scholarship aid for undergraduate students is funded mainly by endowed funds, but some government funds, gifts and general funds are also used. The wages paid to student workers in University departments such as Food Services, are shown as an expense in the department in which the work is actually performed.

4. **Graduate Fellowships**

a) University fellowships. These are paid from both endowed funds and general University funds. Both tuition awards and stipends are included here.

b) Other fellowships. These are underwritten by the federal government and other outside sources. Again both tuition awards and stipends are included.

5. **Other Student and Miscellaneous Fellowships.** These are mainly summer and postdoctoral grants, plus some undergraduate prizes. All are supported by sponsored research projects or special restricted funds.

6. **Central University Services**

a) Library. These costs reflect the acquisition of books and other library materials, plus all personnel and other costs of making the collections available for use at Firestone and at 20 branch libraries. However, the cost of maintaining the buildings is shown in Physical Facilities, line 9.

b) Computer Center. The main expenses of operating the Computer Center are the staff, machine rental and amortization and ordinary operating costs for equipment maintenance, communication charges, paper products and the like. Again, building costs are included in line nine.

c) Security. These are the costs of the University's proctor and guard forces, together with their associated operating expenses.

d) Other. Other central University services include Administrative Systems and Data Processing, which handles administrative computing, and such other central services as Occupational Health and Safety and the University machine shops and stockrooms.

7. **Administration**

a) Academic Administration and Student Services. The offices of the provost and deans, the University Health Services, the offices of admission and the registrar, and the Chapel are included here. Most of the offices in this category deal directly with the academic programs and interact frequently with faculty and students.

b) General Administration and Expenses. These are mainly the "business" offices of the University: the vice presidents, the controller, personnel and-administrative services, etc. Various fund-raising activities, public affairs and alumni activities are included here.

8. **Athletics.** This includes the expenses of intercollegiate competition, intramural sports and physical education. The principal items are the salaries of coaches and other staff, together with operating expenses. Some of the costs of the athletics facilities themselves are included in line nine, but the Athletic Department does maintain many of its own facilities.

9. **Physical Facilities.** The operation and maintenance costs of all campus buildings are included here, regardless of the departments which occupy them. Also included are the costs of: the Food Services operation; maintenance and management of the dormitorities and other University housing; the janitorial and groundskeeping forces; and the general manager of planning, plant and properties and his staff.

A major component of this line is energy costs. Because of its size and because these expenses can vary significantly from year to year depending on weather conditions and unexpected price changes, an energy reserve separate from the operating budget is maintained. If energy costs turn out to be greater than the amount budgeted, the reserve is drawn down to fill the gap. Conversely, if energy costs underrun the budget, the savings are transferred to the separate reserve fund. This smoothes out the enormous fluctuations that can occur in this item.

10. **Transfer to Reserve for Renewal and Replacement.** A reserve for renewal and replacement (separate from the operating budget) is maintained to cover major equipment purchases and major maintenance expenses and to smooth out potentially sizeable differences in expenditures from year to year. (see box on major maintenance).

11. **Salary Increases (including benefits).** This is a major item in the Priorities Committee deliberations each year. For this reason, salary pools are included all in one place on this line for the fiscal year under consideration. As salary increases are approved and distributed to individuals, the amount shown on this line is distributed among all of the other budget lines in accordance with the individual's departmental affiliation. (This explains why this line is blank in the past and current years, with a figure shown only for the upcoming budget year.)

(In thousands of dollars)	1977–78 Actual	1978–79 Current Estimate	1979–80 Projection
1. Academic Departments and Programs			
a) Instructional costs			
1) Faculty, academic year	15,926	17,486	17,575
2) Teaching assistants	1,973	2,046	2,152
b) Other salaries, expenses and benefits	26,382	28,152	29,406
Subtotal	44,281	47,684	49,133
2. Plasma Physics Laboratory	43,009	44,921	46,506
3. Undergraduate Scholarships	4,756	5,209	5,991
4. Graduate Fellowships			
a) University fellowships	3,092	3,512	3,950
b) Other fellowships	1,877	1,747	1,850
Subtotal	4,969	5,259	5,800
5. Other Student Aid and Miscellaneous Fellowships	839	839	839
6. Central University Services:			
a) Library	6,724	7,505	7,681
b) Computer Center	2,593	2,812	2,635
c) Security	1,768	1,806	1,811
d) Other	2,596	3,194	3,301
Subtotal	13,681	15,317	15,428
7. Administration			
a) Academic administration and student services	5,325	5,643	5,775
b) General administration and expenses	6,633	6,982	7,115
Subtotal	11,958	12,625	12,890
8. Athletics	2,354	2,324	2,374
9. Physical Facilities	22,515	23,957	25,336
10. Transfer to Reserve for Renewal and Replacement	2,444	2,631	2,966
11. Salary Increases (Incl benef.)	—	—	4,133
12. Allowance for Contingencies	—	100	200
Total	150,806	160,866	173,595
Less Interdeptmtl Transactions	5,431	5,758	6,122
Grand Total	145,375	155,108	167,473
13. Estimated Income	144,561	154,602	167,478
14. Surplus or (deficit)	(814)	(506)	5

12. **Allowance for Contingencies.** In a budget the size of Princeton's, unexpected expenses are bound to develop during the year. Accordingly, a single lump sum is included here to cover unanticipated expenditures incurred after the budget is approved.

Interdepartmental Transactions. As was the case on the income side, interdepartmental transfers have to be subtracted from total expenses to arrive at the amount actually spent by the University. Since an interdepartmental transfer includes, by definition, income for one department and an equal expense for another department, this number is the same here as it was on the income side.

Budget Deficit or Surplus. This represents the difference between total income and total expenditures. Any deficit that is incurred is covered by capital reserves, thus reducing the amount of money available to be invested. (Although these funds are not endowment—the principal of endowment funds cannot be spent—they are nevertheless invested and the income is included in line 1 as income from current funds.) Any surplus of income over exponses is used to replenish these reserve funds.

PRINCETON UNIVERSITY

REPORT OF THE PRIORITIES COMMITTEE TO THE PRESIDENT

Recommendations Concerning the Budget for 1973-74

January 20, 1973

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INTRODUCTION

In preparing this year's Report of the Priorities Committee we have tried to build on past reports. In our review of the budget we have recognized that it is neither practical nor useful to conduct an exhaustive review of every facet of the University's operation every year. Following the same line of reasoning, we also believe that the Committee's report need not describe these operations in great detail every year. As a result, this year's report is considerably shorter than it has been in previous years.

The report is organized in much the same way that it has been in the past. The first section contains a description of the work of the Committee and the basic premises under which we operate. The second section describes the overall financial situation of the University as it now appears, including the actual results for last year, an updated version of the budget for the current year, and a summary of our recommendations for next year.

The third section of the report deals with our specific recommendations and is divided into three parts. The first of these is a discussion of the two areas which we believe raised the most significant policy questions: faculty staffing and the Computer Center. The second part of this section describes a number of smaller changes we are recommending to the Provisional Plan developed in last year's report. Finally, we discuss our recommendations on fees and charges -- tuition, room and board, and rents for faculty, staff, and married student housing.

The last section of the report describes the Provisional Plan for the next four years. This includes a summary of the budget projections through 1976-77 and a list of the underlying assumptions.

Finally, there are two appendices to the report. The first contains the summary tables showing income and expenditures as budgeted for 1972-73 and as recommended for 1973-74. The second is a copy of the budget guidelines sent by the Provost to the chairmen of departments and heads of offices at the beginning of the year.

Again this year we wish to thank the Deans and heads of offices who worked so hard to provide the information needed by the Committee. We particularly wish to thank all those individuals who appeared before the Committee personally to answer our questions and to discuss what were often exceedingly complex and sensitive issues. We have also benefited greatly from the contributions of those individuals who have met regularly with us, either at the suggestion of the Executive Committee of the Council or as stipulated in the Charter of the Council: Mr. Henry Bessire, Vice-President for Development; Mr. Paul Firstenberg, Financial Vice-President; Mr. Anthony Maruca, Vice-President for Administrative Affairs; and Dr. Richard Spies, Assistant Provost, who acted as the Executive Secretary of the Committee. The Committee is also indebted to Mr. Lee Casey, who acted as Recording Secretary for the Committee and who was an invaluable liaison with the Controller's Office.*

Robert Boisture, '74
Ahmet S. Cakmak
Ellen Chances
Howard Chatzinoff, '74
Thomas M. Dyer, GS
Frank A. Ferrone, GS
Deborah Leff, '73
Richard A. Lester
Albert Rees
Richard Rorty
Carl W. Schafer
Malcolm Steinberg
Dennis F. Thompson
Sheldon Hackney (Chairman)

*Because of conflicts in their schedules two members of the Committee, Mr. Samuel C. Howell and Mr. John H. Wells, '73, were unable to meet with us regularly.

I. THE WORK OF THE PRIORITIES COMMITTEE

In submitting its recommendations to the President in the form of a report that will be generally available to the public, the Priorities Committee wishes to make clear at the outset what it conceives its function to be and how it seeks to carry out its responsibilities.

The purpose of the Priorities Committee is to advise the President on matters that affect the making of the budget for the succeeding fiscal year and that underlie long-range plans for resource allocation. Members of the Committee understand, as should other members of the University community, that the Committee's recommendations are only advisory. The weight given by the President and the Trustees to the Priorities Committee report depends upon the force of the arguments and the evidence in the report itself. Since the inception of the Committee three years ago, the President and the Board of Trustees have relied heavily upon its recommendations in meeting the serious financial crisis that confronts the University. In this, the fourth Report of the Priorities Committee, we have built upon the work of our predecessors and we have attempted to live up to their high standards.

The Priorities Committee is one of seven charter committees of the Council of the Princeton University Community. Its members are nominated by the Executive Committee of the Council (chaired by the President) and approved by the Council as a whole. As stipulated in the Charter of the Council, the Priorities Committee has sixteen regular members: three administrative officers serving ex officio (the Provost, who is the chairman, the Dean of the Faculty, and the Treasurer); six faculty members (including at least one from each of the four academic divisions of the University and at least one non-tenured member); four undergraduate students; two graduate students; and one representative of other groups on the Council (the administrative staff in the case of this year's Committee).

In addition to the stated members, the Financial Vice-President, the Vice-President for Development, and the Vice-President for Administrative Affairs meet regularly with the Committee, and the President meets with the Committee when his schedule permits. The Assistant Provost (for resource planning) serves as executive secretary of the Committee.

In nominating members of the Priorities Committee, the Executive Committee of the Council takes particular care to provide for continuity on the Committee, because experience is a great asset; for demonstrated interest, because it is an extremely hard-working committee; and for broad representation, because the Committee's work affects every aspect of life in the University and consequently benefits from a variety of points of view. The common element is a belief that the University's well being, and not parochial interest, ought to be the benchmark of judgment. In the course of developing recommendations for the President, the members of the Priorities Committee have an unusual opportunity to learn a great deal about University finances and they are meant to share their understanding with others. By discussing problems and University affairs widely, members are able to bring back to the Committee the special perceptions needed to inform the Committee's judgments. Conversely, in their discussions, members help to explain to the rest of the community why particular courses of action are recommended and others are not. Through all of the Committee's own deliberations, the utmost candor is encouraged and actually prevails.

Our work began this year on the happy note struck by the news that the University finished fiscal 1972 with its budget essentially in balance and by the projected balance in the budget for fiscal 1973. We were well aware, and the University community should also be aware, that the fundamental pressures toward financial deficits are still operative. As President Bowen and Treasurer Schafer keep reminding us, ours is a "handicraft" industry so that cost efficiency is difficult to achieve. The upward pressure on costs tends to outpace increases in the traditional sources of income. Thus today's economies do not guarantee a balanced budget tomorrow. Nevertheless, the Committee felt that the austerity of the previous two years had produced a fairly lean operation and that the amazingly good morale which existed despite the strict financial measures could not be maintained indefinitely without some financial relief. The Committee's first act then, in September, was to develop a set of Guidelines which went to Department Chairmen on September 15 (see Appendix B). The Guidelines indicated that our financial troubles were not over but that we did not anticipate the necessity for budget cutting on the scale of the previous two years. The philosophy guiding the work of the Priorities Committee from its beginning has been that in the face of limited resources Princeton should choose to do a relatively small number of things extremely well rather than spreading the resources over a larger number of activities with mediocre results. In September 1972 we embraced the corollary of this principle, that if some enhancements of our program were now possible because of our improved financial position, they should be carefully selected ones. In our judgments and recommendations we have attempted to apply the principle and its corollary.

The work of the Priorities Committee this year has been immeasurably lightened by the accomplishments of the Committee over the preceding three years. The thorough reviews of budgetary units carried out so recently in the past have meant that the Committee this year needed to look in a detailed way only at certain problem areas. For other major departments and programs the Committee relied on the Provisional Plans developed by previous Committees as a standard against which to measure budget requests. Beginning in late October, the Committee met twice a week to discuss the topics selected either because they presented peculiar problems or because they required routine review: Computer Center; graduate student support; faculty staffing; faculty, staff, and married student housing; Physical Planning and Facilities; Dormitory and Food Services; tuition; undergraduate student aid; and salary pools. The responsible University official in each instance submitted a detailed analysis of the operation under review and appeared before the Committee to discuss the issues involved. The results of those deliberations are reported below.

For the first time since its creation, the Priorities Committee this year believes that it may be possible to turn some of its attention away from annual budget requests and short-term projections toward longer term priorities problems. This spring the Committee plans to take up a number of special problems deferred to provide time for further study, such as a review of faculty and staff dining facilities, janitorial services, the provision of health services, etc. In addition, we expect to examine some of the proposals for new programs, all of which would require long-term support. The Committee also wants to think further about its own role for the next few years and to develop more systematic ways of making judgments about the long range future of the University.

II. THE GENERAL OUTLOOK

When this Committee reported its budget recommendations a year ago, we projected a budget deficit for the fiscal year 1971-72 (FY 72) of more than half a million dollars. When the University's books were closed after the end of the year in June, however, the final result was an essentially balanced budget.

An examination of these results shows that the swing of nearly $600, 000 was attributable primarily to (1) an increase in income over the estimates contained in the Priorities Committee report -- mainly accounted for by the record-breaking Annual Giving campaign, and (2) further expenditure savings, primarily in administrative departments. The following table lists, in somewhat more detail, the principal factors responsible for balancing the budget:

Factors Altering the Financial
Results Projected in January 1972
for the Fiscal Year 1971-72

(in thousands of dollars)

Deficit projected in January	542
Factors increasing the deficit:	
Expenditures for security -- mainly proctor and guard overtime -- were higher than projected. The January estimate of achievable savings in this department proved to be too optimistic.	107
Income from the University's rental properties fell short of expectations, largely due to the delays encountered in resolving complicated issues posed by the Government's price control program.	58
Subtotal, factors increasing the deficit	165

Factors eliminating the deficit:

The Annual Giving campaign broke all previous records.	301
Student fee income was higher, primarily because second semester attrition was less at the undergraduate level than had been predicted.	128
Expenditures for academic and general administration were well below expectations, in part because the net costs of student health insurance premiums were less than expected. In addition, there were substantial expenditure savings in fund raising activities, occupational health, and a number of other administrative departments.	240
All other changes	70
Subtotal, factors eliminating the deficit	739
Net change in result	574
Actual surplus achieved	32

As may be seen from the following table, we are now predicting an approximately balanced budget for the current year (FY 73) as well. In addition, the Committee is recommending a budget for FY 74 that is also balanced. This budget will be discussed in detail in the following section.

Summary of Income and Expenditures

(in thousands of dollars)

	FY 69	FY 70	FY 71	FY 72	FY 73	FY 74
Income	72,887	76,481	77,375	79,103	85,318	88,356
Expenditure	72,805	77,466	78,884	79,071	85,288	88,291
Surplus or (Deficit)	82	(985)	(1,509)	32	30	65

It is important to realize that forecasts of this kind must be taken with the proverbial grain of salt. In a budget of this size a net change of a single percentage point in the balance between expenditures and income would produce a swing of almost a million dollars in the surplus or deficit. Even the figures for FY 73 are quite uncertain since they are based on updated budgets rather than actual expenditures for the first part of the year. The Treasurer and the Controller are constantly refining our forecasting techniques, but it is impossible to remove all the uncertainty. There are just too many items in the budget, especially on the income side, over which we have little or no control. However, we do try to make our estimates of these items as realistic as possible, so that, in the words of Treasurer Schafer, they have "an equal chance of being high or low."

III. SPECIFIC RECOMMENDATIONS FOR FY 74

The budget we are recommending for FY 74 is essentially balanced. Although this apparently represents nothing more than a continuation of our present situation as measured by the actual FY 72 results and the latest estimates for FY 73, the Committee faced a number of difficult choices. The result is a budget that is still austere.

There are essentially two reasons for this result. First, income from some of the traditional sources is expected to grow only slightly or not at all next year. We expect outside support for graduate education to continue to decline, including the loss of a major Ford Foundation grant which expires in FY 74, and we expect that the Computer Center will lose more than three quarters of a million dollars in outside income when one of its major users obtains its own equipment. In addition, income per unit of endowment is expected to increase only slightly in FY 74. Endowment income for FY 74 is actually earned during the period June 1, 1972 through May 31, 1973, so this item is fairly easy to predict. The second reason for the tight budget next year is the tight budgets of the past. Over the last few years the University has undergone a significant amount of belt-tightening. In many cases worthy requests have had to be denied. Thus, at a time when a limited amount of expansion is possible, the Committee has had to make some hard decisions. It is simply not possible for Princeton to do everything that is worthwhile. We must repeat our conviction that the University should continue to do only those things which it can do well -- and which it can afford.

Most of our recommendations are in accord with the Provisional Plan described in our earlier reports. Therefore, our discussion of them need not be as detailed as it has been in the past. In the sections that follow, we first discuss the two areas which, in our judgment, raised the most significant policy questions, faculty staffing and the Computer Center.

In both of these areas we believe it is necessary to deviate somewhat from the recommendations of the Provisional Plan. The second part of the discussion contains a brief explanation of several smaller changes we are recommending in the Provisional Plan. Finally, we discuss the Committee's recommendations on charges for next year -- tuition, room and board, and rents for faculty, staff, and married student housing.

A. Major Policy Issues

1. Faculty Staffing. Since the fall of 1970 budgeting for faculty has been extremely tight. During these years of climbing enrollments the number of authorized faculty positions has been essentially constant. In fact, the actual number of full-time faculty members on the teaching budget has declined slightly because of some unexpected resignations and vacancies among authorized positions. It is clear that the result of these policies has been an increase in the workload of most faculty members. The Committee believes strongly that faculty members should not be asked to bear the burden of constantly increasing workloads. A further increase in the student-faculty ratio might well result in a noticeable decline in the quality of instruction. Undergraduate enrollment is still rising toward the steady-state goal of 4,400 students. The bulk of the growth in the next two years will occur in the junior and senior classes, where our emphasis on independent work places the greatest demands on faculty time. Consequently, a recommendation of no increase in the size of the faculty would really mean an increase in the demands on the time of individual faculty members. This could easily result in a faculty less accessible to students, both undergraduate and graduate, and thus would represent a real decline in the quality of a Princeton education.

In view of this situation the Committee is recommending an increase in the size of the faculty. The actual recommendation calls for the addition of about thirty-three full-time faculty members to the current teaching budget, an increase of almost 6% over the number of positions actually occupied in 1972-73 and 3% over the number authorized. The extent to which this increase is actually realized will, of course, depend on our success in filling the positions authorized.

As in the past this Committee has not attempted to recommend detailed staffing plans for particular departments. Instead, we have relied on the Dean of the Faculty to review the requests of the departments and then present an overall set of recommendations to us. In conducting this review the Dean of the Faculty, along with the Provost, the Dean of the College, and the Dean of the Graduate School, met with the representatives of each department (usually the Chairman, the Director of Graduate Studies, and the Undergraduate Representative). They discussed the overall academic program of the department, as well as its specific staffing requests. On the basis of these meetings a set of detailed staffing proposals was prepared, and then summarized for our Committee. It is our feeling that these proposals represent a significant step forward in our continuous effort to enhance the quality and effectiveness of the faculty.

We also recommend the adoption of a program of special appointments to enhance the excellence and diversity of the faculty. These appointments will be in addition to, and not substitutes for, positions already authorized in specific departments, and thus they will not be so closely tied as normally to the department's teaching and field-coverage needs. Departments will be encouraged to canvass widely for particularly outstanding people who could make distinctive contributions to the life of the department and of the University. Should such a person be found, the department would formally request the Dean of the Faculty to authorize a position. Such requests would be reviewed by a committee consisting of the Provost, the Dean of the Faculty, the Dean of the College, and the Dean of the Graduate School. The final decision on authorizing the position would be made by the President. The procedure for filling positions authorized under this program will be the same as for filling any faculty position and involves review of departmental recommendations by the Committee on Appointments and Advancements.

This program is modest in scope. In the first year the total cost would be no more than $100,000. By the third year of the program we envision it including eight to fifteen people in all three professorial ranks and costing approximately $300,000 a year. Faculty members hired under this program would eventually occupy positions in the normal staffing allocations of their departments, thus freeing funds for the continuation of the special opportunities program.

2. Computer Center. In FY 74 the Computer Center will lose its largest single source of outside income. The Geophysical Fluid Dynamics Laboratory, a U. S. Government facility located on the Forrestal campus, is in the process of installing its own computer equipment. This means that the Computer Center will lose the approximately $800,000 a year in income currently produced by the GFDL account. This loss of income will not be offset by a comparable decline in costs. It is the nature of a large computing facility that most of its costs are fixed; no matter how much computing is done, these costs have to be incurred. Therefore, the loss of this income will directly and significantly affect the total University budget. Faced with this situation, the University has three basic options:

1) continue to operate the Computer Center at the same level and absorb the loss of income with general funds;
2) cut back the level of operations;
3) replace the GFDL account with new outside income.

The Committee feels quite strongly that the third option is by far the best -- *if* it is feasible. The idea of selling computer time commercially is appealing, but there are a number of policy questions that have to be answered first. There are also many questions concerning the legal and tax implications which are still being investigated. We obviously do not want to rush into such a venture. Still, the Committee recommends that the issue be given very serious study and that, unless some insoluble problem emerges during the course of this study, a program of commercial sales be implemented as soon as possible. This program must not, of course, interfere with the basic educational and research use of the computer.

In the short run -- until the feasibility of commercial sales can be determined -- the Committee is recommending a combination of the first two options. With the help of the Director of the Computer Center we have been able to recommend reductions of almost $150,000 from the original budget request. These cuts involve only peripheral equipment and should not involve a significant degradation of computing services, nor do they involve a reduction in staff. However, we think that any further cuts would result in a serious reduction in the quality of service and would seriously affect the Computer Center's ability to meet the needs of students and faculty. They would also make our computing services much less attractive to potential outside customers. Thus the Committee recommends that, for the next fiscal year at least, only this first set of cuts be made. If it becomes clear that new outside income cannot be found, then the whole question will have to be re-examined, but we believe that it would be wrong to make substantial cuts in the Computer Center's base of operations before we know whether or not the GFDL income can be replaced.

B. Other Changes in the Provisional Plan

1. Graduate Student Support. In last year's report we described in some detail the problems facing graduate education both here and elsewhere. Because of the dramatic decline in outside support the University has had to commit more and more of its own funds to the support of graduate students. At the same time we can no longer guarantee every graduate student four years of full support. In order to insure that the

funds we do provide are distributed equitably, we have implemented a means test to take account of students' financial needs. The Dean of the Graduate School now uses this test in the awarding of fellowships. In short, the situation has changed drastically from the affluence of the 1960's when every graduate student at Princeton was guaranteed full support, a condition which never existed before and is not likely to exist again.

The Committee reaffirms the plan described in last year's report. However, outside support for graduate students has held up much better than expected. It is still declining but at a slower rate than anticipated. Because of this we are able to recommend some modest improvements in the pattern of support for graduate students. These changes have been developed and proposed by the Dean of the Graduate School. First, we recommend that the stipend level be increased from $1,800 to $2,000 for University "B" fellowships[*/] and from $900 to $1,000 for University "C" fellowships. Secondly, the plan we are now recommending calls for more "B" and "C" fellowships -- and far fewer "E" fellowships -- than did last year's plan. In addition, we expect a small decrease in the number of students who get no support at all, though it is interesting to note that more students than expected (a total of fifty-nine in the first-year class) accepted our offers of admission without any support. Finally, we recommend that the basic package for all University fellowships be increased from $1,800 to $2,500. The difference between $2,500 and the various stipend levels will be provided in the form of loans. This involves a total commitment of about three-quarters of a million dollars in loan funds each year, but all these funds will be used only if all the eligible students borrow the full

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[*/] In Princeton parlance the various categories of fellowships have the following meanings: "A" fellowship (from special funds only) -- $2,200 plus tuition; "B" fellowship -- $2,000 (formerly $1,800) plus tuition; "C" fellowship -- $1,000 (formerly $900) plus tuition; "D" fellowship -- tuition; "E" fellowship -- one-half tuition.

amount offered. In our experience, admittedly limited, we have found that on average less than half of the amount offered in loans is actually borrowed.

The Committee recognizes that some students may need more than $2,500 simply to maintain some minimal standard of living. In particular, students with families normally have greater needs, especially if their spouses cannot work. Therefore, we are recommending that the Dean of the Graduate School consider a supplementary loan program to help students with special needs.

We wish to emphasize that this plan in no way provides a solution to the basic problems facing graduate education at Princeton. It does represent a major commitment to the Graduate School, both educational and financial, but it cannot be considered anything more than a holding action. Because outside support has been better than anticipated we think we can sustain this pattern of support for graduate students through 1976-77. After that the situation is much less clear. As expressed in last year's report, we hope that national solutions can soon be found to the problems of financing graduate education.

2. Undergraduate Student Aid. The Committee recommends that the policies on undergraduate student aid that have been followed in recent years be continued. The one change we do recommend is that the planning figure for economically disadvantaged students in the entering class be increased from 10% to 11%, which is the actual figure for the present freshman class. Bringing this planning figure into conformity with reality is important in order to provide sufficient funds for all students who need aid. Because disadvantaged students require more support than other students who need financial help, this change increases the amount budgeted for scholarships by about $44,000. The balance of the $285,000 increase in scholarships is due to the higher costs of attending Princeton, especially to higher tuition, and to increases in enrollment.

The Committee also recommends another $100 increase in the self-help component of the student aid package. In particular, we are recommending that the loan expectation be increased by $100, to a total of $1,000 ($800 for economically disadvantaged students). This recommendation is in accord with the Provisional Plan adopted by the Committee two years ago. We recognize that this places a significant burden on many students, but we feel that, in the interests of equity and in order to insure the most effective use of our limited funds, we must continue to increase the self-help portion of student aid. Princeton is presently involved in a major study with eight of its sister institutions in an effort to develop some kind of program to lessen the impact upon individuals of this burden.

It should also be pointed out that the Committee is not recommending any increase in the student's expected contribution from employment earnings. Because of the uncertainties of the economic situation, the Bureau of Student Aid has not proposed any increase in the summer earnings expectation. As for term-time earnings, we expect that there will be no increase in student wage rates next year. Therefore, a student would have to work more hours to meet any increase in earnings expectation. We don't think this would be at all desirable from an educational point of view. Since there are still not enough jobs for all the students who need them, we continue to urge departments to use student labor wherever possible.

The Committee believes that this plan will allow us to offer scholarship aid to every student who has a need for it. However, there is no way for us to guarantee that result since the need for scholarship funds depends on the nature of the applicant pool. We can only reaffirm our commitment to that goal.

3. Athletics. The stringent financial situation in the University has made it necessary over the past two years to make significant cuts in the budget of the Department of Athletics and Physical Education, as well

as in other areas. Last year, largely because of the greater than anticipated participation of undergraduate women in the athletic program, we amended the Provisional Plan slightly to provide more funds. This year we are recommending an upward revision of the Provisional Plan by approximately $50,000. The major portion of this increase, as well as the addition of a trainer in Health Services, is necessitated by the growth of the women's intercollegiate program and of informal athletics for both men and women. These revisions, recommended by both R. Kenneth Fairman, the retiring Director of Athletics, and Royce N. Flippin, Jr., his successor, are intended to provide some latitude for the new Director in his first full year as he assesses the needs of the entire program and the new directions it might take.

4. Library. For the Library, the Committee simply endorses the Provisional Plan adopted last year. This plan calls for a 7.5% increase in general funds expenditures for acquisitions in FY 74, plus a 2.2% increase in library staff. For the years after FY 74 the plan provides for increases in acquisitions of just over 10% a year and staff increases of about 3% annually.

5. Leave of Absence Program for Administrative Staff. The Committee recommends the adoption of a very modest program of leaves of absence for administrative staff members. This program is designed to encourage professional growth among our administrators and to allow them to learn new skills. We feel that a program of this kind can do much to improve the morale and to enhance the abilities of this very important group of employees. Over the past few years most administrative departments have experienced increased workloads due to the rising enrollment without

any increases in staff. In many cases there have actually been cuts in staff. At the same time, salary increases have been quite modest. Under these circumstances, a program to encourage professional development seems especially desirable.

We recommend that $35,000 be authorized for this program. With that amount, five or six administrators might be supported during leaves of up to one semester each. This support could include the payment of tuition and other educational expenses, as well as salary. We think this program can be an important tool in the University's effort to attract and develop administrators of the highest quality.

6. Supporting Services. The Committee recommends a number of changes in the Provisional Plan for supporting services, including a substantial increase in the FY 73 budget for Security. This represents an admission that it has not been possible to achieve the cuts envisioned in Security two years ago, as evidenced by the FY 72 overrun noted earlier. There is no increase planned for Security in FY 74 over the adjusted figure for FY 73.

We also recommend an addition to the Provisional Plan for the physical planning and facilities area. Two years ago the Committee recommended that the number of janitors be reduced from 118 to 88 through attrition. We have now reached a level of 104, but the Committee believes that it would be unwise to make any further cuts at this time. We are aware that there is some dissatisfaction with the present level of service and an outside consultant recommended that the staff be increased to 112. We are recommending that the janitorial staff be held at 104 for FY 74 and that this recommendation be reviewed later in the year when we will have some evidence concerning the quality of service at this level.

We are also recommending some modest additions to staff in the areas of general and academic administration. The staff of Health Services requires strengthening because of increased workloads caused by higher enrollments and increasing student use of the services. We particularly endorse the efforts of the Director to find a doctor who is a gynecologist or has had gynecological training. The Office of Research and Project Administration needs additional staff to support a more aggressive effort to maintain or increase Princeton's share of the declining number of federal research dollars. The increased amount of work generated in the Bureau of Student Aid by U.S. Government loan programs dictates an additional clerk in that office, and we think that an additional part-time administrator in the Office of the Dean of Student Affairs is needed to coordinate the growing number of student activities associated with Commons and with the Colleges and Halls. As the number and diversity of Princeton's undergraduate student body have increased so has the workload of the Admissions Office. We think one more Assistant Regional Director will enhance our ability to attract and to assess applications from the sorts of superior students we are seeking. Though we have been very reluctant to see an enlargement of the administrative staff, this limited amount of growth in selected areas appears to us necessary.

7. Salary Policy. The Committee believes that an adequate salary policy is essential to the future of the University. If we expect to be able to attract and hold the very best people we must be prepared to pay competitive salaries. Thus we recommend that an overall salary increase pool of 5.5% be established for FY 74. This is still the maximum amount allowable under the wage guidelines of the new Phase III Economic Stabilization Program. We also wish to reaffirm our advocacy of the merit principle in distributing these salary increases even if many very deserving faculty and staff as a result receive less than the average raise. We feel strongly that excellence should be rewarded, both for faculty and for supporting staff. This is especially true for those in the higher ranks, where some of our best people received relatively small raises last year and none at all the year before.

C. Recommended Fees and Charges for FY 74

1. Tuition. The Committee recommends that tuition be increased by $250 in FY 74 to $3,300 for undergraduates and $3,400 for graduate students as provided by the Provisional Plan described in the Priorities Committee reports of previous years. We are aware of the burden this places upon students and their families, but we continue to believe that the income from this source is necessary if the University is to be able to fulfill its mission at the high levels of performance expected of it. As in the past, to offset the consequences of higher tuition for those least able to pay, we are recommending a fairly large increase in the funds available for student aid.

The rise in tuition, coupled with the brake we have been applying to costs, will continue the recent trend at Princeton as elsewhere for students to pay a slightly higher fraction of their educational costs. It is still true, however, that tuition covers only about half of these educational costs and that over the last fifteen years Princeton's tuition has remained about constant in relation to median family income in the nation at large.

A number of other factors also affected our decision to incur the pain of imposing higher charges. Though we are aware of the feeling of many people working with admissions that tuition and costs are affecting the decisions of potential applicants and candidates, we see no evidence that Princeton has been adversely affected. Total applications fluctuate normally from year to year and must also be interpreted in the context of national trends, but Princeton's applicant pool does not appear to have been eroded, either in numbers or in quality. Furthermore we continue to receive applications from families of all income levels and we notice no significant shifts in the economic backgrounds of our entering classes. Richard Spies, the Assistant Provost and an economist, has conducted an analysis, which will soon be published, of a survey of college-bound high school seniors. He concluded that there was no convincing statistical basis for thinking that costs significantly affected college-choice decisions of any income group. Finally, looking at the charges of other institutions attracting students of similar quality, Princeton's relative position, whether considering tuition alone or tuition plus room and board, will remain unchanged if the anticipated increases in charges are put into effect.

2. Room and Board. The Committee recommends a $50 increase in the room charge for undergraduates. At the same time we believe that the contract rates at the various undergraduate dining facilities should remain unchanged. This increase in rates is consistent with the Provisional Plan and gives some assurance that the undergraduate dormitories and dining halls will produce a modest operating surplus. The Committee considers this surplus a reasonable contribution to the substantial capital costs of the system. As described in last year's report, these capital costs take two different forms. The first is the interest paid on money borrowed for the construction or acquisition of a dormitory or dining hall. The Princeton Inn is the one example of an undergraduate facility on which the University presently has a mortgage of this kind. The second form of capital cost is incurred when the University uses its own money for construction. Here the cost is the return we would have made on that money if we had left it in our investment pool. Both of these costs are very real -- and very substantial. We believe that the undergraduate system should pay at least a small part of them.

The Committee recommends an increase in room rather than board rates for two reasons:

1) The room rate at Princeton is quite low compared to other schools with comparable facilities. This will still be true even after a $50 increase. The board rates, on the other hand, are quite high both relatively and absolutely.

2) To raise the same revenue the board rate would have to be increased about $80. We think it would be counterproductive (and inequitable) to impose increases of this magnitude only on the students eating in University facilities. Such increases might well drive students out of the dining halls, thereby reducing the revenue gained from the rate increase.

The Committee believes that the undergraduate dormitories and dining halls should be considered a unified system, and not a set of unrelated facilities. The benefits of this system accrue to all the students in it, no matter where they live or eat. Therefore, we think that it is not unreasonable to raise the room charge to cover expected deficits in the dining halls.

This recommendation does not include the proposed increase in the room charge to pay for the installation of a Centrex phone system in the dormitories. That charge (approximately $28) would be added over and above the $50 increase we are recommending. This position is consistent with the UGA referendum in which the students voted to adopt a Centrex system.

Finally the Committee recommends that the room and board rates at the Graduate College increase by 6 3/4%. This is the same rate of increase as last year and is consistent with the Provisional Plan. With increases of this magnitude we expect to be able to eliminate the operating deficit for the Graduate College by FY 76. The Committee wishes to reaffirm its belief, stated in last year's report, that the most equitable and efficient way for the University to distribute the limited funds available for the Graduate School is directly through the fellowship budget rather than through the subsidization of living facilities.

3. Rents on Faculty, Staff, and Married Graduate Student Housing. Until last year the Committee had consistently supported rent increases of 10% a year. Last year the economic controls of President Nixon's Phase I

and Phase II forced us to limit the increase to 5%. The Committee is now recommending an increase of 8% for all rental units in FY 74. In addition, the program of rent equalization begun in 1971 is expected to continue. These steps enable us to renew the very gradual reduction of the operating deficit for our rental units. At the same time we feel that an 8% increase results in a much more acceptable burden for the tenants than would a 10% increase. We are walking a very delicate tightrope in this area. We want to reduce the deficits in the operation of our rental units, and thus the inequities between those who live in these units and those who don't, but we don't want to impose large increases in rent on the tenants every year. We think that an 8% rate of increase constitutes a reasonable compromise for next year. For the years beyond FY 74 changing conditions may require different rates of increase.

IV. PROVISIONAL PLAN THROUGH FY 77

In most major budget areas, the Committee has considered planning numbers for four years into the future. We continue to believe that we must look at least this far ahead because some of our most important commitments -- in the areas of student aid and faculty staffing, for example -- run for a number of years. The Provisional Plan totals and the principal underlying assumption are shown in the following tables:

Provisional Plan: Operating Budgets

FY 74 through FY 77

(in thousands of dollars)

	FY 74	FY 75	FY 76	FY 77
Income	88,356	93,347	99,331	102,725
Expenditures	88,291	93,339	99,314	102,711
Surplus	65	8	17	14

Principal Assumptions Underlying
Provisional Plan
for FY75, FY76, and FY77

General Note

In predicting income over the forecast period, restricted endowment and gift income have been matched against the corresponding expenditures in all cases in which the spending in fact determines the amount of income actually utilized.

Income

1. Endowment
   - a. $5 million per year increase in principal, the income from one-half of which is used to relieve general funds.
   - b. Income per unit in the investment pool increases 5% per year.
2. Tuition
   - a. Undergraduate enrollment increases by approximately 100 students in FY75, declines slightly in FY76, and remains at that level in FY77.
   - b. Graduate enrollment drops from approximately 1350 in FY74 to approximately 1300 the remaining three years.
   - c. Tuition increases $200 per year for both graduate and undergraduate students.
3. Contracts and Grants for Sponsored Projects

   Increase 8-10% per year through FY76, remaining approximately level in FY77. Within the total, an increase is projected for the Plasma Physics Laboratory, while other activities remain approximately level.
4. Annual Giving

   Increases by $100,000 per year in FY75 and FY76, then increases $200,000 in FY77.

5. Other Gifts and Grants

   Current major term grants (or the equivalent) are replaced except for the Ford Foundation Fellowship grant which ends in FY74. Funds from the State of New Jersey under recently enacted legislation increase 5% per year. New gifts relieving general funds are projected at a level of $50,000 each year.

6. Auxiliary Activities
   - a. 8% increase per year in rents plus equalization for Faculty and Staff Housing.
   - b. 8% increase per year in rents for Married Student Housing.
   - c. A $20 increase in the undergraduate room charge in FY75, with increases in room and board combined in FY76 and FY77 of $70 per year.
   - d. Graduate College charges increase 6 3/4% per year.

7. Service department income increases approximately 3% to 4% per year with the exception of FY75, when assumed increased outside sales of computer time cause the overall increase to approach 10%.

Expenses

1. Instructional Budget
   - a. The size of the faculty increases approximately 2% per year.
   - b. In addition, $100,000 is budgeted in FY74, $200,000 in FY75, and $300,000 in FY76 and FY77 for the new special program to increase the excellence and diversity of the faculty.

2. Other Expenses of Academic Departments and Special Academic Programs
   - a. Sponsored research increases approximately 8-10% per year through FY76, remaining approximately level in FY77. Within the total, an increase is projected for the Plasma Physics Laboratory, while other activities remain approximately level.
   - b. The number of non-faculty personnel on general funds increases 1% per year.
   - c. Operating expenses increase 3% per year.

3. Graduate Fellowships
    a. Government fellowship support declines about 30% per year through FY76 before leveling off.
    b. University fellowship support increases approximately 12% per year through FY76 and then levels off in FY77.

4. Undergraduate Student Aid

    Increases as tuition and room and board charges increase in order to maintain the current percentage of students on aid. Self-help expectations are as follows:

    a. Loan expectation increases $100 per year.
    b. Income from employment during the academic year increases 6% in FY75, remains constant in FY76, and increases 6% in FY77. (This component is determined by our assumptions about student wage rates.)
    c. Summer job earnings and family contribution each increase 5% per year.

5. Library
    a. Funds for acquisitions increase by 10 1/2% per year.
    b. The number of personnel increases approximately 3% per year.
    c. Operating expenses increase 3% per year.

6. Computer Center
    a. The number of personnel remains constant.
    b. Operating expenses increase 3% per year.

7. Academic and General Administration, Athletics and Security
    a. The number of personnel increases 1% per year.
    b. Operating expenses increase 3% per year.

8. Physical Planning and Facilities
    a. Service functions are maintained at minimum acceptable levels in accordance with the recommended provisional plan.
    b. The cost of materials and purchased services increases 4% per year.
    c. Taxes increase 7 1/2% per year.

9. Dormitory and Food Services
   a. Food costs increase 4% per year.
   b. Other operating expenses increase 3% per year.
   c. The number of personnel remains constant.

10. Salary Increases

    5 1/2% increase per year in total salary pool. The distribution will depend upon considerations of merit, equity, and market conditions.

There are two points to bear in mind when considering these tables. First, the statements made earlier about the uncertainty which always surrounds future financial projections apply with particular force to estimates several years ahead. Even a single event affecting the equilibrium, and particularly any change which signals an alteration in an expected trend, can have a magnified impact the further ahead one looks. Second, the essentially balanced budget forecast through FY 77 did not "just happen." After estimates of items over which we have no direct control -- real estate taxes, income from the Government and the like -- were made as accurately as possible, the remaining assumptions were adjusted (as realistically as possible) to produce a balanced budget each year. In effect, the question was not "if things keep going the way they are, what will happen to the numbers?", but rather "what reasonable set of judgments can be made about the future which will keep Princeton's budget in balance?" These are tentative judgments and are subject to review each year. The Provisional Plan is an extremely useful tool but it should not be followed blindly from year to year. The Priorities Committee has in fact recommended departure from the Plan each year and should continue to do so on the basis of more realistic information or when in its judgment the long-term well-being of the University would be served.

Appendix Table A-1

PRINCETON UNIVERSITY

Operating Budget: Income
(in thousands of dollars)

	1971-72 Actual (1)	1972-73 Budget (2)	1973-74 Projection (3)	Difference (3)-(2) (4)
1. Endowment	14,248	15,047	15,954	+907
2. Student Fees:				
a. Undergraduate Tuition	10,977	12,331	13,629	+1,298
b. Graduate Tuition	3,841	4,246	4,352	+106
c. Other	287	285	285	---
Subtotal	15,105	16,862	18,266	+1,404
3. Gifts & Grants (non-gov't):				
a. Sponsored Projects	2,245	1,807	1,649	-158
b. Annual Giving	3,601	3,700	3,900	+200
c. Other	4,098	4,016	3,586	-430
Subtotal	9,944	9,523	9,135	-388
4. Federal & State Government:				
a. Sponsored Projects	22,908	26,119	27,061	+942
b. Other	1,762	1,719	1,446	-273
Subtotal	24,670	27,838	28,507	+669
5. Auxiliary Activities:				
a. Athletics	595	558	564	+6
b. Dorm. & Food Services	5,938	6,109	6,661	+552
c. Faculty & Staff Housing	1,337	1,404	1,534	+130
d. Married Student Housing	434	456	492	+36
e. Commercial Properties	754	840	1,055	+215
Subtotal	9,058	9,367	10,306	+939
6. Service Departments	3,575	4,184	3,529	-655
7. Other	2,503	2,497	2,659	+162
GRAND TOTAL	79,103	85,318	88,356	+3,038
Memorandum: Summary of Sponsored Projects				
a. Direct Costs	19,345	21,806	21,885	+79
b. Indirect Cost Reimbursements	5,808	6,120	6,825	+705
Total[*]	25,153	27,926	28,710	+784

[*] Sum of lines 3a and 4a.

Appendix Table A-2

PRINCETON UNIVERSITY

Operating Budget: Expenditures
(in thousands of dollars)

	1971-72 Actual (1)	1972-73 Budget (2)	1973-74 Recommendations (3)	Difference (3)-(2) (4)
1. Academic Departments:				
a. Instructional Salaries				
1. Faculty, acad. year	9,207	9,643	10,387	+744
2. Teaching ast. stipends	648	678	695	+17
3. Teaching ast. tuitions	496	599	663	+64
b. Other salaries, expenses and benefits	16,160	17,387	17,181	-206
c. Graduate Fellowships				
1. University Fellowships*/	1,205	1,169	1,893	+724
2. Other Fellowships	2,610	2,648	1,626	-1,022
Subtotal	30,326	32,124	32,445	+321
2. Special Academic Programs	11,312	13,714	14,398	+684
3. Undergraduate Scholarships	3,406	3,441	3,726	+285
4. Other Student Aid and Miscellaneous Fellowships	533	528	528	---
5. Central University Services:				
a. Library	3,660	4,178	4,283	+105
b. Computer Center	2,315	2,447	2,335	-112
c. Security	929	1,049	1,045	-4
d. Other	497	573	590	+17
Subtotal	7,401	8,247	8,253	+6
6. Administration:				
a. Acad. Administration	3,025	3,476	3,536	+60
b. General Administration	5,106	5,544	5,614	+70
Subtotal	8,131	9,020	9,150	+130
7. Physical Planning and Facilities	8,798	9,646	9,726	+80
8. Athletics	1,335	1,351	1,372	+21
9. Dormitory & Food Services	3,647	3,841	4,070	+229
10. Transfers to Reserves	3,614	3,301	3,313	+12
11. Undistributed Personnel Benefits	413	---	35	+35
12. Salary Increases (including benefits)	---	---	1,700	+1,700
13. Savings from unfilled positions and unspent operating budgets	---	-250	-750	-500
14. Allowance for Contingencies	155	325	325	---
GRAND TOTAL	79,071	85,288	88,291	+3,003
15. Estimated Income	79,103	85,318	88,356	
16. Surplus or (deficit)	32	30	65	

---

*/Endowment and General Funds.

Notes to Summary Tables

GENERAL NOTE: Some of the lines of these summary tables have been discussed in detail in the report proper, and no attempt will be made here to summarize information which appears elsewhere.

Income

1. Endowment income increases in FY74 because (a) the investment income per unit has risen slightly; (b) some units have been added; and (c) some departments are planning to use more available income next year than they are currently using. (Endowment income does not show up in the operating budget at all unless it is actually spent.)

2. Student fees were covered above in the discussion of tuition.

3. Gifts and Grants. We are estimating an increase of $200 thousand in Annual Giving, which will be more than offset by a drop in sponsored projects and a more marked reduction in other gifts, mainly for academic departments and programs. The important point, however, is that annual giving serves to reduce the deficit dollar for dollar, while many of the "other" gifts and the portion of sponsored project funds devoted directly to the cost of the projects, are included on both the income and expenditure sides of the budget, with no net impact on the deficit.

4. Federal and State Government. The sponsored project increase is mainly for the Plasma Physics Laboratory. The entire drop in other government income is attributable to reduced support for graduate students. Offsetting this somewhat is an increase predicted in funds from the State of New Jersey under recently-enacted legislation.

5. Auxiliary Activities. Most of these activities were discussed in detail earlier. Rental income from commercial properties is higher because of anticipated receipts from new tenants at the Forrestal campus.

6. Service Departments. Decrease is mainly attributable to the Computer Center's loss of income from the Government's Geophysical Fluid Dynamics Laboratory.

7. Other income. This line consists mainly of income from the investment of current funds.

Expenditures

1. Academic Departments. Instructional salaries and Graduate Fellowships were discussed earlier. The reduction in other salaries, expenses, and benefits is due entirely to a lower estimated level of sponsored research.

2. Special Academic Programs. Increase is for the Plasma Physics Laboratory.

4. Other student aid, etc. This line includes miscellaneous items (prizes, post-doctoral fellowships and the like). None of these items involve general funds.

5. Central University Services. The "other" category here includes the machine shops and stockrooms. Increase is in support of expanded activity at the Plasma Physics Laboratory.

10. Transfers to reserves. This is a "formula" calculation based on a moving average of expenditures from these funds in prior years.

11. Undistributed personnel benefits. The $413 thousand amount shown for FY72 reflects the fact that the actual cost of social security, retirement, and other benefits exceeded the amounts distributed by formula to the other lines of the table (as a percentage of the salaries included on those lines). The $35 thousand shown for next year is the estimated cost of a new leave program for administrative personnel.

13. Savings from unfilled positions, etc. This is a customary allowance for the fact that not all budgeted positions are filled throughout the year. The allowance is larger for FY74 because a larger number of vacancies are included in the budget for that year, especially on line 1 a. 1 (faculty - academic year).

APPENDIX B

Princeton University: DEPARTMENT -- Office of the Provost

INTER-OFFICE CORRESPONDENCE

To	Department Chairmen Heads of Offices Directors of Programs	Date	September 15, 1972
From	Sheldon Hackney	Subject	Review of the University's Current Financial Situation and Guidelines for 1973-74 Budget Requests

---

You will soon be receiving the forms for the 1973-74 (FY 74) operating budget. These forms are nearly identical to last year's, and they will be accompanied by a set of detailed instructions, including a time schedule. Before the deluge of forms, however, it might be useful to review the University's overall financial situation. We can then set forth some general considerations that all of us must bear in mind.

As President Bowen announced to the Faculty on September 11, the University has achieved a balanced budget a full two years earlier than was anticipated. Although the final results for 1971-72 showed a surplus of only $32,000 in a total budget of $79,000,000, this is certainly a vast improvement over the previous year's $1.5 million deficit. It also represents a significant improvement over the approximately half-million dollar deficit predicted by the Priorities Committee in January 1972. The largest single reason for this improvement was a record-breaking performance in Annual Giving. However, there were also significant savings in administrative costs. The following table summarizes the differences between the January forecast and the year-end result:

Factors Altering the Financial Results Projected in January 1972 for the Fiscal Year 1971-72

(in thousands of dollars)

Deficit projected in January	542
Factors increasing the deficit:	
Expenditures for security -- mainly proctor and guard overtime -- were higher than projected. The January estimate of achievable savings in this department proved to be too optimistic.	107
Income from the University's rental properties fell short of expectations, largely due to the delays encountered in resolving complicated issues posed by the Government's price control program.	58
Subtotal, factors increasing the deficit	165

Factors eliminating the deficit:	
The Annual Giving campaign broke all previous records.	301
Student fee income was higher, primarily because second semester attrition was less at the undergraduate level than had been predicted.	128
Expenditures for academic and general administration were well below expectations, in part because the net costs of student health insurance premiums were less than expected. In addition, there were substantial expenditure savings in fund raising activities, occupational health, and a number of other administrative departments.	240
All other changes	70
Subtotal, factors eliminating the deficit	739
Net change in result	574
Actual surplus achieved	32

We should all be greatly encouraged by these results but we must also recognize that the University's financial problems are far from over. While we have managed to achieve a balanced budget, the basic causes of the recent deficits have not been eliminated. Our success to date has been due almost entirely to your keeping a tight rein on expenditures and to an extraordinary degree of success with Annual Giving. The cost of providing a quality education continues to rise inexorably and much more rapidly than the general price level. The plight of other colleges and universities, many of which are still running large deficits, provides ample evidence of the seriousness of the problem. We simply cannot afford to let our financial condition erode through a lack of vigilance.

For the current year we are now predicting another balanced budget. However, this is at best an educated guess. It should be pointed out that a change of only 1% in either expenditures or income would result in a swing of almost a million dollars in the deficit or surplus. Swings of this magnitude -- in both directions -- have been experienced in the past. Despite the uncertainty involved in these figures, it is clear that the University is in a better financial position than it has been for several years. We are certainly hopeful that the most painful budget cuts are behind us.

There are some general budget guidelines which have been established by the Priorities Committee and approved by President Bowen. As was the case last year, we are asking all those departments for which the Priorities Committee has approved specific multi-year plans to adhere to those plans. Again this does not mean that the specific dollar amounts must be the same as those contained in these plans. Subsequent experience may require revisions in the projections if the original intent of the planning decisions is to be preserved. Therefore, it is important that you review the multi-year plans in light of the final 1971-72 results.

Clearly it is in no one's interest to have departments submit proposals which we all know in advance cannot be funded. Therefore, the Priorities Committee has established specific guidelines for those departments for which multi-year plans have not been developed.

1. In the past we have asked these departments to propose no net increase in academic or other staff. Most of us will have to continue to operate without any additions in staff. However, we recognize that for some departments where workloads have increased dramatically exceptions will have to be made.

2. We must re-examine all present and expected vacancies to determine whether they can remain unfilled without jeopardizing essential functions.

3. As far as operating expenses are concerned, we ask that you propose a budget no more than 3% above that approved for the current year. This should provide for most of the increases due to inflation.

4. Finally, you should try to make fuller use of restricted funds so that general funds can be conserved for those activities which cannot be supported in any other way. At the very least you should not plan to shift charges now paid from sponsored research and restricted departmental funds to the general funds budget without proposing offsetting economies.

Of course, these guidelines are not meant to apply to proposals which are to be financed from sponsored research grants or restricted funds on a continuing basis. Neither are they intended to constrain activities which can be fully funded from new "outside" sources.

With the budget balanced so precariously it is obvious that any increases in expenditures must be accompanied by economies in other areas of the University. A very simplistic example of this tradeoff might be the choice between an increase in staff and higher salaries for the present staff. Very difficult decisions must be made in this area -- and in many others. Although the budget is presently balanced our resources are in no way unlimited. Therefore, we must again ask your help in the difficult job of preserving the financial strength of the University.

Sheldon Hackney

Sheldon Hackney

PRINCETON UNIVERSITY

REPORT OF THE PRIORITIES COMMITTEE TO THE PRESIDENT

Recommendations Concerning the Budget for 1974-75

March 20, 1974

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INTRODUCTION

Because of the changes in the University's academic calendar necessitated by the energy crisis, this year's Report of the Priorities Committee is being issued almost a month later than usual. The Committee's recommendations have been known for some time and, indeed, have already been approved by the President and the Board of Trustees. Provost Hackney discussed those recommendations with the Council of the Princeton University Community at its January meeting, and also reported them to the faculty and to the Administrative Staff Council. The Daily Princetonian has discussed the major recommendations in a number of articles. At this point, it seems safe to assume that most members of the Princeton community are familiar with the Committee's recommendations, at least insofar as those recommendations affect their own particular areas of interest. We still think it is important, however, for the Committee to issue this report so that the reasoning behind all of our conclusions is clear. What we have attempted to do here is to describe in some detail our reasons for making each recommendation and to explain the kinds of choices we faced. We have also tried to convey our sense of the effects of these recommendations on Princeton University and the myriad of people associated with it, both for 1974-75 and for the years ahead.

The report itself is divided into three basic parts. In Chapter I, we discuss Princeton's financial situation and how it has changed over the last few years. We also discuss in some detail what we perceive to be the major responsibilities of the Priorities Committee. In Chapter II we report our recommendations for the next fiscal year (FY 75) and our reasons for making them. Finally, in Chapter III we describe the four-year budget projection known as the Provisional Plan. This year for the first time this section contains a discussion of some of the tradeoffs that are implicit in the Plan. These are the kinds of choices that future Priorities Committees are going to have to make in order to arrive at recommendations about the University's budget.

As usual, the Priorities Committee owes much to all those members of the community who contributed to the entire budgeting process. First of all, there are the many department chairmen and office heads who so conscientiously followed the Provost's guidelines in filling out their budget requests. Next we want to thank the various Deans and administrators who prepared the material considered by the Committee and, in several cases, met with the Committee to answer our questions and to discuss what were often exceedingly complex and sensitive issues. We also want to thank the staff of the Controller's Office who helped assemble all this material and prepared the budget summaries and Provisional Plan. Finally, the Committee has benefited greatly from the contributions of those individuals who have met regularly with us, either at the suggestion of the Executive Committee of the Council or as stipulated in the Charter of the Council: Mr. Henry Bessire, Vice-President for Development; Mr. Paul Firstenberg, Financial Vice-President; Mr. Anthony J. Maruca, Vice-President for Administrative Affairs; and Dr. Richard Spies, Assistant Provost and Executive Secretary of the Committee. We are also indebted to Mr. David Vance who acted as Recording Secretary for the Committee and as an invaluable liaison with the Controller's Office.

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Stuart C. Schwartz
Lyman Spitzer, Jr.
Sheldon Hackney (Chairman)

I. THE WORK OF THE PRIORITIES COMMITTEE

In submitting its recommendations to the President in the form of a report that will be generally available to the public, the Priorities Committee wishes to make clear at the outset what it conceives its function to be and how it seeks to carry out its responsibilities.

The purpose of the Priorities Committee is to advise the President on matters that affect the making of the budget for the succeeding fiscal year and that underlie long-range plans for resource allocation. Members of the Committee understand, as should other members of the University community, that the Committee's recommendations are only advisory. The weight given by the President and the Board of Trustees to the Priorities Committee's report depends upon the force of the arguments and the evidence presented in the report itself. Since the inception of the Committee four years ago, the President and the Board of Trustees have relied heavily on its recommendations in meeting the financial crisis that has confronted -- and continues to confront -- the University. In this, the fifth Report of the Priorities Committee, we have built upon the work of our predecessors and we have attempted to live up to their high standards.

The Priorities Committee is one of the seven charter committees of the Council of the Princeton University Community. Its members are nominated by the Executive Committee of the Council and approved by the Council as a whole. As stipulated in the Charter of the Council, the Priorities Committee has sixteen regular members: three administrative officers serving *ex officio* (the Provost, who is chairman, the Dean of the Faculty, and the Treasurer); six faculty members (including at least one from each of the four academic divisions and at least one non-tenured member); four undergraduate students; two graduate students; and one representative of other groups on the Council (the administrative staff in the case of this year's Committee). In addition to the regular members the Financial Vice-President, the Vice-President for Administrative

Affairs, and the Vice-President for Development meet regularly with the Committee, and the Assistant Provost serves as its executive secretary.

Over the last two years we have noticed a subtle shift in the nature of the financial problems confronting the University. Three years ago our predecessors on the Priorities Committee were faced with the possibility of ever-increasing deficits, starting with actual deficits of $1.0 million in FY 70 and $1.5 million in FY 71. It was obvious to them at that time that no university, even one with the enormous financial resources that Princeton commands, can afford to run deficits of that magnitude for very long. Deficits have to be made up from the University's capital assets, i.e., funds functioning as endowment. This automatically leads to a reduction in income, making it difficult to avoid even larger deficits in future years. It was very clear, then, that this trend toward larger and larger deficits would accelerate if nothing were done about it. Very large cuts in expenditures and increases in income were required; it was the job of the Priorities Committee to make recommendations about where those cuts should come and how that income might be generated.

The situation facing the current Priorities Committee can be considered proof of the success of our predecessors. The budget has been essentially balanced the last two years and we are projecting a string of balanced budgets through 1977-78. However, it is important to understand that the financial crisis of three years ago is not over and that our problems are far from solved. In higher education in general, and particularly at a place like Princeton where the essence of the educational process is the interaction among individual students and faculty members using primary research materials and equipment, costs tend to rise much faster than the general cost of living. The main reason for this is that it is very difficult to increase significantly and steadily "output per man-hour" in the education process as we know it. At the same time the University's traditional sources of income -- endowment income, gifts and grants, student fees, etc. -- are not likely to grow at the same rate. In order to balance the budget in the future, therefore, we are going to continue to have to make difficult choices or, in short, to establish priorities. We are going to have to keep costs down wherever possible. Occasionally this will even mean cutting back on the actual level of activity in certain areas. Because of the work of previous Committees (and also the largely unsung efforts of scores of administrators and other members of the faculty and staff) there is very little, if any, "fat" left in the budget. In order to implement new programs, and to strengthen those we already have, we must either raise new funds from outside sources or else make further cuts in existing programs. In these days of limited resources we can no longer afford to ask only "Is this activity worthwhile?" We must now ask "Does it contribute more to education and scholarship at Princeton than any of the other worthwhile activities we might undertake in its place?" This is really the essence of the Priorities Committee's deliberations. Implicit in every one of our recommendations is the belief that all the expenditures we are recommending are more important at this time than any of those alternative expenditures we are not recommending. The same is, of course, equally true for the recommendations we are making for tuition and other charges.

In stating this belief, however, we should hasten to add that the Committee has not examined -- and is not intended to examine -- in detail every single line item of the University's complex budget, at least not each year. In some areas (academic and general administration and supporting services within academic departments, for instance), we have not found any pressing policy issues this year, and have relied heavily upon the budget review by the senior Deans and other members of the administration. The Committee has, nevertheless, considered all major policy issues at length; those issues are discussed in some detail in the second chapter of this report.

As part of this discussion the Committee would like to remind the members of the University community that Princeton must continue to explore new fields of knowledge if it is to maintain its commitment to excellence. In order to do this it may well be necessary to discontinue some of our present activities if it becomes clear that other activities can contribute more to education and scholarship at Princeton. From its very first days the Priorities Committee has espoused the principle that it is better for the University to do a small number of things, and continue to do them very well, than to accept a general decline in the overall quality of its educational program. We continue to believe in that principle, and we think the entire University community shares that belief. What this means, of course, is that some activities which are inherently worthwhile may have to be dropped or curtailed sharply simply because we do not have the resources to do everything we would like to do. We should point out that Princeton is already among the smallest of the major research universities; this makes it all the more difficult to identify activities that can be dropped without doing great harm to the basic educational program. We want to emphasize, however, that our recommendations for next year do not include dropping any of the University's current programs or activities. Nor do we have specific programs in mind when we say that activities might have to be dropped in the future; indeed we have no way of knowing at this point exactly when (and if) such cuts will be required. Still, we think it is important that all members of the community understand that a certain amount of contraction may have to accompany the addition of new activities in the future.

It is also important to emphasize that the University is constantly seeking new sources of income. Clearly the extent to which we are successful in these efforts will play a large part in determining what activities we will be able to support. However, we need to be realistic about the possibilities for generating large amounts of new income, at least for the foreseeable future. In the face of altogether proper public demands for "accountability" on the part of all colleges and universities, our ability to raise money will be increasingly dependent on our ability to control expenditures wisely.

These long-range problems and concerns are, of course, understood by many members of the University community. It is the responsibility of the Priorities Committee, however, to convert them into specific budget recommendations. The first step in the University's budgeting process is the submission of budget requests by the academic departments and programs and the various administrative offices. In order to assist in the preparation of these requests and to convey to department chairmen the Committee's sense of the financial constraints under which we are operating, a set of budget guidelines was constructed at our first meeting of the fall. The main reason for these guidelines is to discourage the submission of proposals for expansion which we knew in advance could not be supported. The guidelines were discussed at some length in the Committee and then sent to department chairmen and heads of offices in the form of a memorandum from the Provost. A copy of that memorandum is included as Appendix B of this report.

The next step for the Committee in the budget process is to review all those requests. To this end the Committee met throughout the fall with the Deans and other University officials who are responsible for major budgetary units. In particular, we discussed the following topics in some detail: the Computer Center, Athletics, the Library, undergraduate student aid, tuition, Dormitory and Food Services (including room and board rates), faculty and staff and married graduate student housing, the operation and maintenance of the physical plant, graduate student support, faculty staffing, and faculty and staff salary allocations. In addition, the operating expenses of academic departments and programs and the complete budgets of administrative offices were reviewed by the central administration and the results of that review were discussed with the Committee.

In these meetings members of the Committee had a chance to ask questions of the officials responsible for the different areas of the University. At the same time those officials had a chance to explain their budget requests and to give the Committee some sense of what would happen if the requests were not approved. Frequently the Committee asked an administrator for his or her assessment of the effects of reducing the budget requested by some arbitrary amount, say $100,000 or 10%. We have relied heavily on the answers to these questions, as well as our own perceptions of the relative values of the various activities, in making judgments about the priorities to be accorded different kinds of expenditures.

As a result of these meetings the Committee was able to put together a tentative list of recommendations for the expense and income categories we had reviewed. In early December we combined those tentative recommendations with the best available estimates of those income and expense categories that are beyond our control. When we did this we found that we faced a potential deficit of about $500,000. Thus the next step in the process was to go back and find $500,000 in either increased income or reduced expenditures. At this point we tried to bring to bear all that we had learned about the relative needs of different parts of the University as we tried to find the combination of expenditure cuts and income increases that would have the least harmful long term effect on the educational program. The results of those deliberations are described in considerable detail in the next section of this report.

In talking about the budget process it is important to understand that a primary responsibility of the Priorities Committee is to put together a set of recommendations that can be expected to result in a balanced budget. We consider this absolutely essential if the University is to continue to serve its various missions with the same high standards of performance it has exhibited in the past. This does not mean, however, that the year-end results will necessarily show a balance every year. In fact, given the amount of uncertainty inherent in a budget of this kind, it would be very surprising if the budget were balanced every year. In any given year there could easily be a swing of several hundred thousand dollars -- in either direction. In fact, this year is a particularly difficult one in which to prepare a budget. Our usual caveat about the possibility of a 1%

swing in income or expenses seems too mild for the 1974-75 budget; there is much more uncertainty than usual about some of the assumptions on which this budget is based, and food and fuel costs are only the most obvious examples. Fortunately Princeton has sufficient capital reserves to weather an occasional deficit, even one of this magnitude. The important thing is that over the long run the surpluses and deficits should cancel each other out, at least approximately, and that every budget we propose should have an equal chance of running a surplus or deficit.

It is also important to understand the relationships between the Committee and the rest of the University community. Throughout our deliberations members of the Committee are encouraged to discuss the issues confronting us as widely as possible and to get some sense of the opinions of their colleagues. By discussing both specific problems and general issues as widely as possible, members are able to bring to our deliberations the special perceptions needed to inform the Committee's judgments. At the same time members of the Priorities Committee have an unusual opportunity to learn a great deal about the University's financial situation and they are meant to share their understanding with other members of the community. However, it is clear that this kind of informal consultation is not always as wide as one would like. Because of the pressures of time, Committee members are often unable to talk with many people outside their own particular circle of friends and acquaintances. In an effort to encourage wider discussion of the problems faced by the Committee, Provost Hackney began giving periodic reports to the CPUC this fall. We believe that the Provost should continue to make reports of this kind and that any member of the University community who wishes to express his or her views to the Committee should be encouraged to do so, either by contacting a member of the Committee directly or by going through its executive secretary. At the same time it should be understood that the work of the Priorities Committee could never be conducted by referendum, or even by open debate. In order to make informed decisions about any area of the budget it is absolutely essential that a person (or group of people) know what the problems are in all the other areas. It is also essential that everyone involved in the process be able to express his or her views freely and openly, without fear of public misinterpretation. Indeed, one of the great strengths of our present system is that we are able to discuss highly controversial issues with complete candor and individual members of the Committee are able to make decisions without any outside political pressure.

Having discussed at great length the mechanics of our deliberations, it is worth dwelling for a few moments on the Committee's most important characteristic: the general tone and character of its discussion. This report is a unanimous one but not because we arrived at our conclusions quickly or easily. All the members participated in what were generally uninhibited and candid discussions of all the issues, often expressing very different points of view. Throughout, however, these discussions have been characterized by a remarkable lack of special pleading. Committee members have taken seriously their responsibility to think about the best interests of the University as a whole, and there has been no tendency toward logrolling. All of us endorse both the overall set of recommendations and the general statements of principle and policy contained in this report. While each of us might prefer to see one or more particular recommendations changed in some respect, the differences among us are remarkably few. The overall set of recommendations reported here represents our best sense, as a group, of how the University ought to respond to continuing financial difficulties. We believe these recommendations deserve the support of the entire University community.

II. SPECIFIC RECOMMENDATIONS FOR FY 75

The purpose of this section of the report is to discuss in some detail the Committee's specific budget recommendations for 1974-75 (FY 75). In some areas we have followed the long-range plans adopted by last year's Priorities Committee more or less exactly. In other areas those plans have been modified, sometimes significantly, either because our perceptions of the relative needs of the different areas of the University differ somewhat from those of our predecessors or because present circumstances seem to warrant a different approach to meeting those needs. In all cases, however, the Committee has thought long and hard about the consequences of our recommendations. The so-called "Provisional Plan" is very useful as a benchmark against which to judge our recommendations (and compare them to those of past Committees), but it has never been used as a substitute for a careful and concerned discussion of the issues. An endorsement of the Provisional Plan recommendations in a certain area should be considered a reaffirmation of the principles that led the Priorities Committee to those recommendations in the first place; it should not be considered a decision by default.

In this section we discuss our specific recommendations in twelve areas. All of these recommendations and our assumptions about the rest of the budget are summarized in the table and notes which accompany this report (Appendix A).

1. Salary Policy. Perhaps the most important recommendation of the Committee -- and the one that deviates most from the Provisional Plan -- is for a salary allocation for faculty and staff that amounts to 8% of the salaries of continuing employees. As a "labor-intensive" activity, universities are extraordinarily dependent on the quality and commitment of the faculty and staff. This is especially true at a place like Princeton where student interaction with individual faculty and staff

members is clearly the rule rather than the exception. Our ability to attract the very best people for all jobs and at all levels, and to maintain a high level of morale among those people who are already here, is affected by our ability to provide an adequate level of compensation. During each of the last two years, when Federal wage controls were in effect, we were limited to salary allocations of approximately 5.5%. On the faculty side these increases were slightly higher than those provided by universities generally; Princeton's average increase was just over 5.5% while the average for all universities was 5.2% and for major private universities just under 5%. Nevertheless, the data we have been able to collect (the AAUP figures on average faculty compensation, for example) seem to suggest that we have lost some ground competitively over the last ten to fifteen years. Although no set of data can measure exactly the degree to which we are or are not competitive -- indeed we think that many of the published figures on compensation are actually quite misleading -- the Committee strongly supports the view of the Dean of the Faculty that some effort to make up ground is absolutely essential.

The situation with regard to non-faculty personnel is much the same, although it is somewhat harder to document. It is much more difficult, for example, to define the labor market in which Princeton competes for some types of staff than it is for faculty. As a result, it is very hard to measure our competitive position, at least in any summary way. However, the evidence we do have suggests that University salaries are below those of our competitors in many job categories. In addition, turnover rates have increased in a number of areas and many of the people leaving the University cite wages as at least a contributing factor in their decisions. The Committee believes that the need for salary increases is just as great for staff as it is for faculty and thus supports an 8% allocation for both groups.

In reaching this decision the Committee was aware that since 1969-70 average salaries at Princeton for both faculty and staff have increased less than the cost of living (as measured by the Consumer Price Index). Although the University is simply not in a position to guarantee its employees immunity from inflation, we do believe that a special effort is needed this year to ease the burden of the large increases in prices which have occurred over the last twelve months. However, it should be understood that we are not recommending an across-the-board salary increase of 8%. On the contrary, the Committee believes very strongly that increases should be awarded on the basis of merit for both faculty and staff. Indeed, one of the reasons for recommending a large salary pool is to facilitate the application of the merit principle. Thus some people will get raises of substantially more than 8% while many others will get less. It seems to us that this is the only policy that is consistent with, and supportive of, the University's commitment to excellence.

The question of future salary increases will be discussed in Chapter III. It should be noted, however, that it is unlikely that we will be able to provide the 8% increase we are recommending for next year again in the near future. In the Provisional Plan we are assuming 6% increases for 1975-76 and beyond.

We might also mention that most tax-exempt institutions, including private colleges and universities, have just (as of January 25, 1974) been explicitly exempted from wage and price controls by the Cost of Living Council. As a result, we expect that the 8% salary pool we are recommending will be permissible.

2. Faculty Staffing. The Committee was able to recommend a substantial pool for salary increases and still balance the budget only by stringently limiting expenditures in other areas. Therefore, we are not recommending significant additions to present staffing levels. On the faculty side we are recommending an increase in the teaching budget of only five full-time equivalent positions over the number currently authorized, an increase of less than 1%. We should explain, however,

that there are almost always some unfilled positions, so that the actual size of the faculty is normally below the authorized level. In the current year, for example, there are thirteen vacancies on the teaching budget. This means that if every authorized position were filled next year the number of faculty on the teaching budget would increase by eighteen, or about 3%. Of course, we do not expect all the authorized positions to be filled and, indeed, the budget we are recommending includes an estimate of "savings from unfilled positions and unspent operating budgets." However, the existence of these current vacancies (and the normal turnover, particularly among junior faculty) does mean that the Dean of the Faculty and the departments themselves have some flexibility to respond to any major shifts in the needs of the teaching program, even though the net number of new positions authorized is only five.

In making this recommendation, the Committee recognizes that faculty teaching loads have increased over the last few years. Since 1969-70, the first year of coeducation, undergraduate enrollment has increased by about 30% while the number of faculty on the teaching budget has increased by less than 7%. The number of assistants in instruction has also increased over this period, but there is clearly a limit to the amount of teaching that can -- or should -- be done by graduate students. What this means, of course, is that classes now are generally somewhat larger than they were in 1969-70 and the average faculty member has more students to supervise. However, the Patterson Committee, which originally recommended that coeducation be implemented through the addition of 1,000 women, discussed this issue at great length and concluded that such increases would not seriously affect either the educational program or the research activities of individual faculty members. The Priorities Committee agrees with that conclusion; we also believe that further slight increases are possible next year and, indeed, are essential if we are to provide the salary allocation we feel is needed. At the same time, we should point out that the teaching budget we are recommending for 1974-75 is only slightly below that envisioned by the Patterson Committee (after adjusting for salary increases).

As always, the Priorities Committee has not discussed staffing levels for individual departments. Instead we have relied on the Dean of the Faculty, in consultation with the Dean of the College and the Dean of the Graduate School, to review departmental requests and then present a set of overall recommendations to us. It was this overall set of recommendations that served as the basis of the Committee's discussion of faculty staffing.

The Committee recommends that the special "targets of opportunity" program begun this year be continued at its present level. Under this program $100,000 will be budgeted for the special appointment of extraordinary teacher-scholars who can significantly add to the excellence and diversity of the faculty but for whom the departments would otherwise have no specifically authorized positions in their budgets.

3. Administrative and Supporting Services. In the areas of administration and supporting staff for academic departments and programs, we are recommending increases that are even more modest than those recommended for faculty. In a few areas we are even recommending that current authorized levels be reduced by one or two positions, all by attrition or the elimination of existing vacancies.

For academic and general administration the Committee recommends a net addition of one person to the administrative staff; in the same area we are recommending a net increase of other staff of only one full-time and one part-time person. We are also recommending six new clerical positions in the academic departments and programs. In most cases the need for these positions has existed for some time, mainly due to the increases in enrollment. As far as operating expenses are concerned, we are recommending only very small increases -- usually 3% or less -- for all academic departments and programs and administrative offices.

In the Security Department the Committee recommends that the staff be reduced by one proctor and one guard through attrition. We believe that this can be accomplished without reducing the basic level of protection afforded students, faculty, and staff.

4. Graduate Student Support. The Committee recommends a budget of $2,172,000 from general funds and endowment for University fellowships for graduate students. This is an increase of $90,000 over the current year and almost a million dollars over 1972-73. However, because of the precipitous decline in outside support, particularly the expiration of the Ford Foundation grant for the support of graduate study in the humanities and social sciences and the drastic decline in the number of fellowships provided by the Federal Government, even this increase, particularly when coupled with the increases in tuition and other costs, provides less support for graduate students than has generally been available in the recent past. The following table shows how graduate students have been supported since 1969-70, including the projections for next year.

Graduate Student Support

	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75
Assistants in Instruction	108	145	155	185	206	215
Assistants in Research	200	192	232	234	234	240
Assistant Masters	0	0	5	5	7	7
Outside Fellowships	711	570	520	473	389	348
Ford Foundation	140	140	146	141	24	0
University Fellowships	309	359	256	282	446	450
No Support	18	16	44	74	91	92
Total	1,486	1,422	1,358	1,394	1,397	1,352

This table shows quite clearly the course the University has followed in the face of declining outside support for graduate students: 1) a reduction in total enrollment; 2) a large increase in the number of students supported as assistants in instruction along with smaller increases in the numbers of assistants in research and assistant masters; 3) an increase in the number of students paying all of their own expenses; and 4) a large increase in the number of University fellowships after the expiration of the Ford grant. There are three very important parts of this plan which are not evident in this table, however. The first of these concerns the mix of fellowships offered. Partial fellowships were introduced under the general rubric of University fellowships so that many students now receive less than full support (tuition plus a $2, 000 stipend). In addition, a significant portion of the income earned from restricted endowment was saved in 1971-72 and 1972-73 and this money is now being used to fill in the gap left by the expiration of the Ford grant. The large increase in University fellowships in 1973-74 and beyond is made possible by the spending of this endowment "roll-up," along with a fairly large increase in general funds. Finally, the Graduate School is making increasing use of loan funds, enabling students to borrow money under the Federal Insured Student Loan program.

The plan which the Dean of the Graduate School is now recommending, and which the Committee endorses, calls for another small change in the mix of University fellowships, providing fewer of the more substantial "B" and "C" fellowships and increasing the number of students receiving little or no support. Although Princeton no longer makes any guarantees to entering graduate students about future support and most fellowships are awarded for only one year at a time, we have tried to insure that each admitted class can be supported during the full period of its study at Princeton. Both the Dean of the Graduate School and the Priorities Committee believe that the plan we are proposing will enable us to accomplish that end.

The Committee also supports the efforts of the Dean to make greater use of the various instruments for calculating students' financial needs (including parental data) in an attempt to insure that whatever funds are available are distributed as equitably as possible. If we are to attract the very best students in all our graduate programs, we will have to continue to provide support for those excellent students who simply cannot afford a graduate education by themselves while asking those who can afford to bear a larger share of the cost of their education to do so.

Finally, we recommend that $3,048,000 be budgeted for assistants in instruction, assistants in research, and assistant masters. This is an increase of almost $100,000 over the current year.

5. Undergraduate Scholarships. The Committee recommends a total budget of $3,811,000 for undergraduate scholarships, an increase of more than $300,000 over the current year. In reaching this decision the Committee took into account the increases in tuition and other charges we are recommending for next year. However, we expect that these increases will be partially offset by increases in students' contributions from summer and term-time earnings. The assumption about summer earnings is based on a survey of actual earnings (after taxes and living expenses) last summer and represents an increase of about $50 over last year. The expected contribution from term-time earnings is set at the amount that could be earned by working ten hours a week, thirty weeks a year, at the minimum wage rate for each class. Since we guarantee every aid student employment for at least ten hours a week, this seems like a reasonable assumption. It does amount to an increase of from $70 to $110, depending on class, over last year's assumption, however. The main reason for the difference is the assumption about the numbers of hours worked rather than the wage rate (which will increase only slightly next year). Last year's assumptions were based on figures developed several years ago when it was not possible to guarantee every aid student ten hours of work per week. Finally, the Committee is recommending

an increase of $100 in the loan expectation, to $1,100 ($900 for low-income students).

In making this recommendation the Committee strongly endorses the position of the Faculty Committee on Undergraduate Admission and Financial Aid that it is extremely important to provide scholarship aid for all students who need it. We continue to believe that no student should be denied an opportunity to attend Princeton University simply because of his or her economic status; we also believe that the entire undergraduate program benefits greatly from having students from a wide range of social, economic, and cultural backgrounds. In order to accomplish this goal we must provide scholarship aid for all those students who cannot meet the high cost of a Princeton education through their own resources -- support from their parents, earnings from summer and term-time jobs, loans, and whatever other funds might be available. We believe that the scholarship budget we are recommending for next year is large enough to achieve this result.

6. Library. For the Library the Committee recommends an increase of 10.5% in the general funds used for acquisitions. This is the amount requested by Dr. William Dix, the University Librarian, and provided for in the Provisional Plan. We think this increase will enable the Library to hold constant, or even increase slightly, the number of new titles acquired, even in the face of inflation. In any event, a 10.5% increase is substantially larger than any the Committee has been able to recommend in recent years.

As far as the Library staff is concerned, we are recommending an increase of 1.5% over this year's level. It should be noted that this increase is only half that requested by the Librarian and contained in the Provisional Plan. We recognize that our recommendation may well mean that we will have to continue to live with a backlog of uncatalogued materials. We believe that this staff increase will enable the Library to keep the backlog from growing any larger although it probably will not result in a reduction in the backlog that already exists. At this time, however, we feel that a larger staff increase has a lower priority than the other expenditures we are recommending. Dr. Dix himself agrees that right now adequate salary increases for present staff members are more important than increasing the size of the staff. He also assures us that the books and other materials that make up the backlog are listed on order slips in the Public Catalogue and are available, through this single entry, to any Library user.

In order to study the long-range needs of the Library the Priorities Committee has established a special subcommittee. It is hoped that this subcommittee will be able to come to some conclusion about an appropriate rate of growth of acquisition expenditures over the next five to ten years. The group will be meeting with Dr. Dix and his associates throughout the spring and we hope to have some recommendations from them in time for next fall's regular budget review.

7. Computer Center. The Computer Center is again a major area of concern for the Committee. In last year's report we recommended that the University explore the possibility of finding a major outside user to make up for the income that would be lost when the Geophysical Fluid Dynamics Laboratory acquired its own computer. The problem now seems much more complicated than that. Academic and administrative use of the computer has increased so fast that the machine is actually overloaded, at least at certain times of the day. The Computer Center, with the support and guidance of the Faculty Committee on the Computer Center, has already begun to address at least some aspects of this problem. They have just introduced a system of differential pricing to induce users to have their jobs run during the less crowded nighttime hours. We support this plan and urge them to expand these efforts to use the computer more efficiently. In addition, we urge the Provost and other University

officials to review all requests for general funds for the use of the computer -- from both academic and administrative departments. Computer time can no longer be considered a "free" good (i.e., one whose marginal cost is zero); therefore, any use of general funds for computer time must be justified as thoroughly as any other category of expenditure before it is approved. We believe that this kind of rigorous review process will result in a significantly lower rate of growth for the general funds use of the computer.

The basic problem, however, is that the volume of general funds going to support the Computer Center has increased drastically from just over $900,000 in 1971-72 to $1.5 million in 1973-74. The main reason for this is that the use of the machine financed from University funds has grown at the same time that sponsored research use has declined. In order to reduce the level of general funds support, we again urge the appropriate University officials to explore vigorously the possibility of increasing the amount of computer time that is sold to outside users. The Committee is also aware that, in spite of this large increase in general funds, it is not at all clear that we are providing some of the computing services (such as interactive computing or time sharing) that faculty and students consider most desirable. A subcommittee of the Priorities Committee has been established to look into all these questions. This subcommittee will work closely with the Director of the Computer Center and the Faculty Committee on the Computer Center to explore all the organizational and equipment options open to us, trying to determine how we might best meet the computing needs of all the various components of the University. We hope to have a report from them sometime this spring or early next fall.

In the meantime we are recommending a budget of $2,472,000 for the Computer Center for 1974-75. This is essentially a stand-pat budget with no provision for adding any new services or significantly improving the old ones. The budget has been increased enough to cover the expected increases in equipment rentals, maintenance charges, and other operating expenses, but there has been no provision for new equipment or additional staff.

8. Athletics. The Committee's major recommendations for the Department of Athletics and Physical Education concern the income side of the budget. In particular, we recommend that the prices of all Athletic Yearly Ticket Books be raised and that faculty and staff books be priced somewhat higher than student books. We also recommend that user fees be raised for all athletic facilities (Jadwin, Dillon, Baker Rink, etc.), both for faculty and staff and for individuals and organizations from outside the University community.

On the expense side the Committee is recommending a budget of $1,555,000 for athletics and physical education. Because of the extreme sensitivity of athletic programs to inflationary pressures, particularly in the areas of travel, food, and athletic equipment, this is about $50,000 more than the Provisional Plan called for. However, it is $30,000 below the Department's original request. We think that this budget will permit continued growth in the number of students participating in athletics at all levels. We also believe that it will enable us to continue to compete on the intercollegiate level in a wide range of sports. Although there may have to be some reduction in travel, training meals, and other similar kinds of expenses, the Committee explicitly rejected a proposal to drop one or more intercollegiate teams. We feel strongly that the University should provide as many students as possible, both men and women, with an opportunity to compete in intercollegiate athletics, as well as in intramurals and other less formal athletic programs.

9. Physical Planning and Facilities. Physical Plant is another area which caused considerable concern among the members of the Committee, not so much because of any major decisions that had to be made

but rather because of the enormous increases in uncontrollable expenses. The most obvious uncontrollable items are, of course, oil and other fuels; other examples include property taxes, water and sewer charges, and the cost of all kinds of maintenance services and materials. Because of all these expenses, we recommend that the budget for Physical Planning and Facilities be raised to $11,664,000 for 1974-75. This represents an increase of almost $900,000 over the current year's budget which has itself been revised upwards considerably since last year's Priorities Committee report.

Over one-third of the increase for next year is accounted for by the increases in fuel costs alone. In 1972-73 the University's total fuel bill amounted to approximately $900,000. For the current year we expect it to rise to something like $1.4 million, although the final figure will obviously be affected by such factors as the weather and the success of our energy conservation efforts as well as by the price of fuel. For next year we are projecting a futher increase of almost 25%, to more than $1.7 million. This amounts to a total increase of almost 95% in just two years, even with all of our efforts to conserve energy. We will have to continue to conserve energy next year, both to reduce oil consumption and to keep costs down. However, we expect that price increases will more than offset any dollar savings that might be achieved by reduced consumption. The Office of Physical Plant is also investigating the desirability of various kinds of energy-related capital improvements such as the installation of more sensitive temperature controls, increased insulation, etc. The Committee will be reviewing their recommendations later in the spring along with the rest of the major maintenance and capital budget requests.

The one area in the operating budget for 1974-75 where the Committee felt it was possible to make some savings was air-conditioning. We have asked the Director of Physical Plant to investigate the possibility of accomplishing substantial savings by doing less air-conditioning during the summer. We think that temperatures could be raised slightly in air-conditioned buildings without causing any undue discomfort, but at this point it is difficult to know what kinds of savings would result. We expect to receive a report on this matter sometime in the spring.

10. Tuition. In order to produce a balanced budget the Priorities Committee must consider both the income and expenditure sides. Obviously an increase in income negates, or at least reduces, the need for cuts in expenditures. Thus the Committee must make recommendations about those few items on the income side of the budget that are under the University's control.

The first of these items is tuition, where we are recommending an increase of $200 for both undergraduates and graduate students. The Committee feels quite strongly that this is the minimum amount that tuition can be raised given the pressing needs of the University. Although this is not an insignificant increase, it is smaller than the increases of the last three years. It is also in line with the increases being planned by most of the schools with which we compete most directly for students. It is interesting to note that Princeton is now one of the least expensive schools in the Ivy League in terms of total cost, even though our tuition is among the highest.

The Committee was very reluctant, on the other hand, to recommend an increase of more than $200, the amount contained in the Provisional Plan and published in last year's Priorities Committee report. We realize that the rapid increases in charges over the last few years represent a significant burden for many students and their families and we do not want to add to that burden any more than is absolutely necessary. Also, even though all the research we have seen indicates that rising costs are not having any significant effect on the willingness of good students to come to Princeton (including students from low and middle income groups), we recognize that this could conceivably become a real problem in the future. The mere fact that it is already perceived to be a problem is in itself a source of concern. It is important to recognize, however, that further increases of $200 or more can probably be expected in future years, especially if the present rate of inflation continues unabated.

11. Room and Board Rates. It should be pointed out at the very beginning of this discussion that the Priorities Committee has not -- and will not -- make any recommendations about equalizing board rates. We feel that the question of equalization should be resolved by the Undergraduate Life Committee and the appropriate student organizations along with, of course, the Dean of Student Affairs and the other responsible University officials. The only recommendation the Priorities Committee wants to make at this time is that equalization should be approved only if it does not adversely affect the financial position of the undergraduate dining system as a whole. For budgeting purposes we have used the present system of differential rates as a basis for recommending board rates for 1974-75. We should emphasize, however, that we have not tried to prejudge the equalization question in any way. Equalization will stand or fall on its own merits. (At this point, it has received the strong support of the Faculty Committee on Undergraduate Life, the Undergraduate Assembly, and the Trustee Committee on Student Life.[1])

The Committee is recommending a $70 increase in the undergraduate room rate and an increase of just over 11% in board rates. We are also recommending increases of 10% in room and board rates at the Graduate College. In both cases these increases are the result of the same basic factor: the tremendous increases in the prices of all kinds of commodities, especially food and fuel. Food costs alone have risen over 30% in the last year; however, because room and board rates for the current year were set last January these costs have not been passed on to the students. Thus the increases we are recommending are necessary to catch up with past, unanticipated increases in costs as well as to make at least some provision for the further increases we are expecting next year.

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[1] On February 14 the Executive Committee of the Board of Trustees, acting for the full Board, approved the equalization plan presented by the Dean of Student Affairs. This plan provides for an equalized board rate of $945 (for a 20-meal contract).

The room and board rates we are recommending for undergraduates are necessary in order to cover the operating costs of the dining halls and dormitories and make a modest contribution to the enormous capital costs of the system. This is the principle that the Priorities Committee has accepted in the past in recommending room and board rates, and we continue to endorse it.

The Graduate College, on the other hand, has been operating with a substantial operating deficit for some time. The Priorities Committee, with the support of the Dean of the Graduate School, has consistently tried to reduce this deficit by both raising charges and reducing expenditures wherever possible. The rationale for this kind of policy is that graduate student support can be most equitably distributed directly through the fellowship budget rather than through University subsidy of any living facility. In these days of declining support for graduate students it seems particularly important to put every available dollar into the fellowship budget. In the Provisional Plan endorsed by the Committee last year, it was assumed that annual increases of 6.75% in room and board rates would result in a gradual reduction of the deficit at the Graduate College. However, mainly because of the unanticipated increases in food and fuel prices, it now appears necessary to raise rates faster than we had expected. The 10% increase we are now recommending, as large as it will be for those who will have to pay it, will actually reduce the deficit only slightly.

12. Faculty and Staff and Married Graduate Student Housing. We are also recommending a 10% increase in the rents for faculty and staff and married graduate student housing. In thinking about rental housing for married students we have adopted the same general principle that was cited above in our discussion of the Graduate College: in order to insure equity between those who are able to live in University housing and those who are not, the operating deficits in rental housing should be reduced and, if possible, eliminated. For the married graduate students the argument is exactly the same as it was for the students living in the Graduate College: that the students should be supported directly through the fellowship budget rather than indirectly through housing deficits.

As far as faculty and staff are concerned, it is important to realize that the rents in University facilities are generally lower than those charged by commercial developments in the Princeton area and that the University does not have enough rental units to accommodate everybody who wants to live in them. This means that those faculty and staff who live in University housing enjoy a very real benefit that is not available to many of their colleagues. Accordingly, we would find it very hard to defend a rental policy that allows the operating deficits in these units to increase next year. Because of the dramatic increase in the cost of operating and maintaining rental housing over the last year, a 10% increase in rent is necessary just to keep pace with expenses. At a time when we are cutting costs and raising charges wherever possible elsewhere in the University in order to provide a relatively large salary pool, it seems to us that 10% is the minimum increase possible.

III. LONG-RANGE PROJECTIONS

The Priorities Committee has always considered the making of recommendations concerning long-range planning one of its most important responsibilities. Because of the long-term nature of the University's commitments to individual programs -- and to individual people -- it is important to look more than one year ahead in any discussion of those commitments. The Provisional Plan, a projection of the entire budget four years into the future, is one of the most useful tools we have for this kind of planning.

Our recommendations with regard to the Provisional Plan have been fundamentally conditioned by what has happened to the University's financial picture since the last Priorities Committee report was issued. In January, 1973 we were projecting a surplus of $30,000 for 1972-73. In fact, the actual results showed an operating surplus of approximately $20,000. These overall results conceal substantial shifts in particular items, however. We ended up spending, on balance, about $200,000 more on dormitory and food services than we had anticipated, mainly because of the large increases in food prices last spring. However, this negative development was almost completely offset by two more favorable developments, namely higher income from the investment of current funds due to higher interest rates and increased tuition income resulting primarily from lower than anticipated attrition in the spring semester.

For the current year (1973-74) the Committee was projecting another modest surplus, about $65,000. We are now projecting a deficit of more than $200,000. One obvious reason for this swing is the increase in the cost of fuel. Total fuel expenditures are expected to be about $500,000 over the amount budgeted, even with the savings that have been achieved through reduced temperatures and other fuel-saving measures. Other factors increasing the deficit include: increases in food costs at University dining halls (at cash facilities such as Prospect and the Student

Center these costs have been passed on in the form of higher prices, but board rates at contract facilities were set in January, 1973 and could not be raised); a lower estimate of income from the Annual Giving campaign, due mainly to the depressed state of the stock market; lower indirect cost reimbursements on government and non-government sponsored research contracts; less income than expected from the University's commercial real estate properties primarily because fewer units were rented at Forrestal than originally projected. These increases have been at least partially offset by other developments that tend to reduce the deficit. These developments include: higher than expected earnings from endowment; increased income from the investment of current funds because of higher interest rates; and an increase in tuition income because enrollment is slightly higher than expected at both the undergraduate and graduate levels.

The Provisional Plan is summarized in the table and notes shown below. It should be pointed out, however, that it is not by accident that the table shows a string of approximately balanced budgets through FY 78 (1977-78). The Plan was constructed with that goal in mind. Again this reflects our belief that a balanced budget is necessary for the future health of the University. The Plan itself was assembled in two stages. First, estimates were made for those items over which the University has no direct control -- earnings from endowment, for example. Then our

Provisional Plan: Operating Budgets
FY 75 through FY 78
(in thousands of dollars)

	FY 75	FY 76	FY 77	FY 78
Income	99,634	109,717	116,164	122,737
Expenditures	99,625	109,693	116,151	122,718
Surplus	9	24	13	19

Principal Assumptions Underlying
Provisional Plan
for FY 76, FY 77, and FY 78

General Note

In predicting income over the forecast period, restricted endowment and gift income have been matched against the corresponding expenditures in all cases in which the spending in fact determines the amount of income actually utilized.

Income

1. Endowment
    a. $7 million per year increase in principal, the income from three-quarters of which is used to relieve general funds.
    b. Income per unit in the investment pool increases 5% per year.
2. Tuition
    a. Undergraduate enrollment levels off at approximately 4,300.
    b. Graduate enrollment remains at approximately 1,350 through FY 76 and then declines slightly in FY 77 and FY 78.
    c. Tuition increases $250 per year for both graduate and undergraduate students.
3. Contracts and Grants for Sponsored Projects

    Excluding the Plasma Physics Laboratory, income increases approximately 3% per year through FY 78. An increase is projected for the Plasma Physics Laboratory of approximately 35% in FY 76, and then 8-9% per year through FY 78.
4. Annual Giving

    Increases to $4.0 million in FY 75 and FY 76, then increases by $100,000 per year.

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5. Other Gifts and Grants

   Current major term grants (or the equivalent) are replaced through FY 78. New gifts relieving general funds are projected to increase by $66,000 in FY 76, $134,000 in FY 77, and $202,000 in FY 78.

6. Auxiliary Activities

   a. Athletics income increases by 5% per year.

   b. 10% increase per year in rents for Faculty and Staff Housing.

   c. 10% increase per year in rents for Married Graduate Student Housing.

   d. Increases in undergraduate room and board charges as follows:

	FY 76	FY 77	FY 78
Room	$50	$55	$55
Board (average)	65	60	70

   e. Graduate College charges increase 10% per year.

   f. Non-contract food and beverage prices increase 10% per year.

7. Service department income increases approximately 6% per year with the exception of the Computer Center, where sales of computer time are assumed to rise by about 3% per year.

Expenses

1. Instructional Budget

   a. The size of the faculty increases approximately 1% per year.

   b. In addition, $100,000 is budgeted in FY 75, $200,000 in FY 76 and $300,000 in FY 77 and FY 78 for the special program to increase the excellence and diversity of the faculty.

   c. The number of Assistants in Instruction remains roughly constant.

2. Other Expenses of Academic Departments and Special Academic Programs
   a. Sponsored research, excluding the Plasma Physics Laboratory, increases approximately 3% per year through FY 78. An increase is projected for the Plasma Physics Laboratory of approximately 35% in FY 76, and then 8-9% per year through FY 78.
   b. The number of non-faculty personnel on general funds remains roughly the same, with only modest increases in areas with special needs.
   c. Operating expenses increase 6% per year.

3. Graduate Fellowships
   a. Fellowship support from government and other outside sources declines about 25% in FY 76, then levels off in subsequent years.
   b. University fellowship support increases approximately 12% in FY 76 and then remains approximately constant.

4. Undergraduate Student Aid

   These expenditures increase as tuition and room and board charges increase. Self-help expectations are as follows:
   a. Loan expectation increases $50 per year.
   b. Income from employment during the academic year remains constant in FY 76, increases 5% in FY 77, and remains constant in FY 78.
   c. Summer job earnings and family contribution each increase 5% per year.

5. Library[1]
   a. Funds for acquisitions increase by 10.5% per year.
   b. The number of personnel increases approximately 3% per year.

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[1] It should be noted that our recommendations for the Library and Computer Center are particularly tentative. As described in Chapter II, two subcommittees have been set up for the specific purpose of making recommendations to the full Committee about the University's long-run needs in these areas.

6. Computer Center[1]

   a. The number of personnel remains constant.

   b. Operating expenses increase 3% per year.

7. Academic and General Administration, Athletics, Security

   a. The number of personnel remains roughly constant, with only modest increases in areas with special needs.

   b. Operating expenses increase 6% per year.

8. Physical Planning and Facilities

   a. Service functions are maintained at minimum acceptable levels in accordance with the recommended provisional plan.

   b. The cost of fuel, materials, and purchased services increases 6% per year for FY 76 through FY 78.

   c. Taxes increase 8% per year.

   d. The number of personnel remains roughly constant.

9. Dormitory and Food Services

   a. Food costs increase 10% per year.

   b. Other operating expenses increase 6% per year.

   c. The number of personnel remains roughly constant.

10. Salary Increases

    6% increase per year in total salary pool. The distribution will depend upon considerations of merit, equity, and market conditions.

---

[1] It should be noted that our recommendations for the Library and Computer Center are particularly tentative. As described in Chapter II, two subcommittees have been set up for the specific purpose of making recommendations to the full Committee about the University's long-run needs in these areas.

assumptions about the other items were adjusted until we found what we considered to be the most desirable set of assumptions that still resulted in a string of balanced budgets. Thus the Provisional Plan represents our best sense of what actions will be required to ensure that expenditures will continue to be kept within the limits of available resources. These are, of course, only tentative judgments and represent only one possible set of recommendations. The Committee's final recommendations for any given year cannot be determined until the budget for that year is reviewed in detail during the preceding fall.

In discussing the Provisional Plan it is important to understand the amount of uncertainty that is involved in long-range planning. All of our earlier warnings about unexpected swings of several hundred thousand dollars in either expenditures or income are even more relevant for the years beyond 1974-75. A swing of only 1% in either category could change what we are now expecting to be a balanced budget into a million dollar deficit or surplus. If, for example, the prices of oil, natural gas, and other utilities were to increase by 10% per year instead of the 6% we are expecting (in FY 76 and beyond), Physical Plant expenditures would be approximately $500,000 above the Provisional Plan level in FY 78. Obviously an increase of this kind would have to be balanced by reductions in expenditures in other areas of the budget or by increases in income. The Provisional Plan also demonstrates how dependent we are on the continued support of alumni and other friends of the University. If, for example, Annual Giving were to remain at its 1972-73 level, our predicted balanced budget for FY 78 would quickly become a $600,000 deficit. What this means, of course, is that there can be no slackening in our efforts to find new resources. Over the long run it is only by finding more funds that the University will be able to meet its many obligations: to faculty and staff, to students, to alumni and other friends, and to society as a whole.

We would like to draw attention to what we consider the three most important assumptions built into the Provisional Plan: tuition, salary increases, and the growth of the faculty and staff. As described in the notes accompanying the Plan, we are assuming annual increases of $250 in tuition for FY 76, FY 77, and FY 78, a 1% growth in the size of the faculty for each of those years, an even more modest growth in other staff, and salary pools each year equal to 6% of the salaries of continuing employees. Again we should emphasize that these judgments are extremely tentative, and they do not commit the University -- or even the Priorities Committee -- to any particular course of action. However, they do represent the Committee's present sense of what may be possible over the next few years. We believe, for example, that salaries will continue to be a pressing need in future years, especially if the current rate of inflation is not substantially reduced. We also believe that some increases in staffing levels will be needed for both faculty and non-faculty staff. Given limited resources, however, it obviously will not be possible to move very far on either front, or at least not on both fronts simultaneously. For salaries we believe that a 6% rate of increase is a reasonable one and, though not as large as most of us would like, probably as much as the University will be able to provide under the circumstances. Indeed, if we tried to provide an 8% salary pool for each of these years, it would lead to an additional expenditure from general funds of more than two million dollars in FY 78. This recommendation is extremely tentative, however, and will be reconsidered next year in light of any changes in our competitive position for faculty and staff and in the cost of living.

As far as staffing levels are concerned, we anticipate increases of about 1% for faculty and even less than 1% for other staff. We think that these increases represent the absolute minimum possible given present staffing levels. On the faculty side some growth is inevitable as enrollment patterns change over time and as new fields of learning are discovered and explored. A 1% rate of growth, which amounts to only six or seven positions a year, allows some flexibility in dealing with these developments. It does not, however, provide for any significant expansion in the overall academic program. As far as non-faculty staff are concerned, the very modest increases we are projecting will probably be necessary simply to keep the quality of the various supporting services at its present level. It should be understood, therefore, that we do not foresee any major expansion of supporting staff and services.

Finally, we are projecting tuition increases of $250 each in FY 76, FY 77, and FY 78, an average annual increase of 6.7%. Although student aid funds will be increased at the same time, we realize that tuition increases represent a significant burden for almost all students. However, we believe that these increases will be necessary as expenditures continue to grow faster than the other major sources of income. Also, we do not expect these increases to be out of line with the general increases in prices and incomes over the next few years. If tuition increases were held to $200 per year, the effect on the University's FY 78 budget (after adjusting the undergraduate student aid budget and the graduate student support package) would be about $500,000.

It is clear from this discussion that the next few years will not be easy ones for Princeton. Expenditures cannot be held down indefinitely without doing irreparable damage to the basic program of teaching and scholarship. We have already seen the pressure for increased staff and for higher salaries, and those pressures will almost certainly not abate. At the same time, the traditional sources of income -- student fees, earnings from endowment, and other gifts and grants -- cannot be expected to keep pace.

Obviously Princeton is not alone in this situation. Private colleges and universities throughout the country are facing rising costs, and in many cases declining enrollments as well. Most educators believe that a healthy mix of public and private institutions is one of the great assets of our current system of higher education. If that mix is to be preserved, then these trends must be dealt with successfully. Because the problem is really national in scope, this will almost certainly require action on the part of the Federal government. In addition, it will require the cooperation and assistance of state governments, which actually provide most of the support for public higher education. While this is not the place to endorse any specific set of recommendations, we do applaud the efforts of those who urge all levels of government to increase the amount of support they provide for all of higher education, private as well as public. It is our firm belief that the long-run problems facing Princeton, and most other colleges and universities, can be solved only if large amounts of new resources are forthcoming, from both the public and the private sectors.

Appendix Table A-1

PRINCETON UNIVERSITY

Operating Budget: Income
(in thousands of dollars)

	1972-73 Actual (1)	1973-74 Current Estimate (2)	1974-75 Projection (3)	Difference (3)-(2) (4)
1. Endowment	14,484	16,497	17,723	+1,226
2. Student Fees:				
a. Undergraduate Tuition	12,378	13,777	14,970	+1,193
b. Graduate Tuition	4,255	4,638	4,763	+125
c. Other	296	305	305	---
Subtotal	16,929	18,720	20,038	+1,318
3. Gifts & Grants (non-gov't):				
a. Sponsored Projects	2,115	1,871	1,451	-420
b. Annual Giving	3,582	3,800	4,000	+200
c. Other	4,813	3,271	3,368	+97
Subtotal	10,510	8,942	8,819	-123
4. Federal & State Government:				
a. Sponsored Projects	26,028	28,953	31,414	+2,461
b. Other	1,704	1,542	1,330	-212
Subtotal	27,732	30,495	32,744	+2,249
5. Auxiliary Activities:				
a. Athletics	527	527	600	+73
b. Dorm. & Food Services	6,341	7,341	8,170	+829
c. Faculty & Staff Housing	1,577	1,698	1,876	+178
d. Married Student Housing	484	518	573	+55
e. Commercial Properties	791	866	1,004	+138
Subtotal	9,720	10,950	12,223	+1,273
6. Service Departments	4,521	4,543	4,885	+342
7. Other	2,601	2,907	3,202	+295
GRAND TOTAL	86,497	93,054	99,634	+6,580
Memorandum: Summary of Sponsored Projects				
a. Direct Costs	22,001	24,649	26,332	+1,683
b. Indirect Cost Reimbursements	6,142	6,175	6,533	+358
Total*/	28,143	30,824	32,865	+2,041

* Sum of lines 3a and 4a.

Appendix Table A-2

PRINCETON UNIVERSITY

Operating Budget: Expenditures
(in thousands of dollars)

	1972-73 Actual (1)	1973-74 Current Estimate (2)	1974-75 Recommendations (3)	Difference (3)-(2) (4)
1. Academic Departments:				
a. Instructional Salaries				
1. Faculty, Acad. Year	9,624	10,491	11,030	+539
2. Teaching Asst. Stipends	667	733	765	+32
3. Teaching Asst. Tuitions	572	700	774	+74
b. Other Salaries, Expenses and Benefits	17,282	18,431	18,846	+415
c. Graduate Fellowships				
1. Univ. Fellowships */	1,238	2,082	2,172	+90
2. Other Fellowships	2,694	1,839	1,549	-290
Subtotal	32,077	34,276	35,136	+860
2. Special Academic Programs	13,934	16,272	18,044	+1,772
3. Undergraduate Scholarships	3,458	3,489	3,811	+322
4. Other Student Aid and Miscellaneous Fellowships	567	440	440	---
5. Central University Services:				
a. Library	4,158	4,428	4,513	+85
b. Computer Center	2,455	2,502	2,472	-30
c. Security	1,082	1,097	1,071	-26
d. Other	768	832	851	+19
Subtotal	8,463	8,859	8,907	+48
6. Administration:				
a. Acad. Administration	3,406	3,777	3,862	+85
b. General Administration	5,600	5,991	6,146	+155
Subtotal	9,006	9,768	10,008	+240
7. Physical Planning & Facilities	9,616	10,799	11,664	+865
8. Athletics	1,563	1,502	1,555	+53
9. Dormitory & Food Services	4,259	4,902	5,166	+264
10. Transfers to Reserves	3,534	3,363	3,242	-121
11. Salary Increases (including benefits)	---	---	2,602	+2,602
12. Savings From Unfilled Positions & Unspent Operating Budgets	---	-500	-1,100	-600
13. Allowance for Contingencies	---	100	150	+50
GRAND TOTAL	86,477	93,270	99,625	+6,355
14. Estimated Income	86,497	93,054	99,634	
15. Surplus or (Deficit)	20	(216)	9	

* Endowment and General Funds

Notes to Summary Tables

GENERAL NOTE: Some of the lines of these summary tables have been discussed in detail in the report proper, and no attempt will be made here to summarize information which appears elsewhere.

Income

1. Endowment income increases in FY 75 because (a) the investment income per unit has risen; (b) some units have been added; and (c) some departments are planning to use more available income next year than they are currently using. (Endowment income does not show up in the operating budget at all unless it is actually spent.)

3. Gifts and Grants. We are estimating an increase of $200,000 in Annual Giving, which will be more than offset by an estimated drop in sponsored projects. The important point, however, is that Annual Giving serves to reduce the deficit dollar for dollar, while the portion of sponsored project funds devoted directly to the cost of the projects is included on both the income and expenditure sides of the budget, with no net impact on the deficit or surplus.

4. Federal and State Government. The sponsored project increase is mainly for the Plasma Physics Laboratory. The entire drop in other government income is attributable to reduced support for graduate students. Offsetting this somewhat is an increase predicted in funds from the State of New Jersey.

5. Auxiliary Activities. Most of these activities were discussed in detail earlier. Rental income from commercial properties is higher because of anticipated receipts from new tenants at the Forrestal campus.

6. Service Departments. The increase is mainly due to the higher levels of computer usage, as discussed in detail earlier. Much of this income is from general funds rather than outside sources.

7. Other Income. This line consists mainly of income from the investment of current funds.

Expenditures

1. Academic Departments. Instructional salaries and graduate fellowships were discussed earlier. The increase in other salaries, expenses, and benefits is due to additional benefits associated with instructional salaries, a higher estimated level of sponsored research, and higher costs for general operating expenses.

2. Special Academic Programs. Increase is primarily for the Plasma Physics Laboratory.

4. Other Student Aid and Miscellaneous Fellowships. This line includes miscellaneous items (prizes, post-doctoral fellowships and the like). None of these items involve general funds.

5. Central University Services. The "other" category here includes the machine shops and stockrooms.

10. Transfers to Reserves. This is a "formula" calculation based on a moving average of expenditures from these funds in prior years.

12. Savings From Unfilled Positions and Unspent Operating Budgets. This is a customary allowance for the fact that not all budgeted positions are filled throughout the year. The allowance is larger for FY 75 because a larger number of vacancies are included in the budget for that year, especially on line 1a. 1 (faculty-academic year).

APPENDIX B

Princeton University: DEPARTMENT -- Office of the Provost

INTER-OFFICE CORRESPONDENCE

To Department Chairmen
Heads of Offices
Directors of Programs

DATE September 18, 1973

SUBJECT Budget Guidelines for 1974-75

FROM Sheldon Hackney

The forms for the 1974-75 (FY75) budget have just been distributed. These forms are nearly identical to last year's and, as usual, they are accompanied by a set of detailed instructions, including a time schedule. However, it might be useful to establish some general guidelines for budget requests before you get too far along in the process.

President Bowen announced to the faculty on September 17 that the final results for 1972-73 show an essentially balanced budget. This is a very encouraging result and one in which we can all take considerable pride -- our second consecutive balanced budget. However, we should not be lulled into complacency by this result. Our costs continue to rise inexorably -- and at an apparently accelerating rate. Although the twin demons of food and fuel are the most obvious examples, the costs of almost all goods and services purchased by the University have risen drastically over the last few years, and there doesn't seem to be any relief in sight. In addition, there are many pressing needs that we have been unable to meet fully in the last several years because of the very tight financial situation. If we are to take serious steps toward meeting these needs in the near future, it is extremely important that we all work to keep expenses down as much as possible.

In this spirit the following guidelines have been established by the Priorities Committee and approved by President Bowen. It is, of course, in no one's interest to have departments submit proposals that we all know in advance cannot be funded. Therefore, I ask that you pay close attention to these guidelines when you are filling out your requests. Those of us who have had the job of reviewing budget requests are extremely grateful for your past cooperation in this regard, and I know we can expect the same this year. In particular we ask:

1) That you propose net additions in academic or other staff only if they are absolutely necessary. If you do request an increase in staff you should document the need for each new position as thoroughly as possible. In particular, please include whatever measures are available of the increased workload for your department -- e.g., enrollment increases for academic departments and programs.

2) That you examine all present and expected vacancies to determine whether they can remain unfilled without jeopardizing essential functions.

3) That you make every effort to keep operating expense budgets at this year's level. We recognize that this will require you to absorb through more efficient (or restricted) operations the increases caused by inflation. If it is impossible for you to meet this goal, please justify your request for a larger budget by referring to specific increases in costs or to new activities that must be supported with these funds.

4) That you try, wherever feasible, to make fuller use of restricted funds, so that general funds can be conserved for those activities which cannot be supported in any other way. You should not plan to shift expenses now covered by research contracts or restricted departmental funds to the general funds budget without proposing offsetting economies.

5) That departments having approved multi-year plans adhere to those plans. This does not mean that the specific dollar amounts must be the same as those contained in the so-called "provisional plan." You may well have to revise these plans in light of the actual 1972-73 results. If this is necessary, however, please explain carefully the reasons for each change.

Of course, these guidelines are not meant to apply with equal force to proposals which are to be financed from restricted funds on a continuing basis. Neither are they intended to constrain activities which can be fully funded from new "outside" sources.

Undoubtedly, some of you will think that these guidelines are too strict. The fact that the budget has been balanced the last two years should not be taken as a guarantee of financial stability in the future. It is going to take more and more money just to continue doing what we're already doing; inflation and a backlog of unmet needs ensure that. In addition, if the strength and vitality of the University are to be preserved, we must be ready (and able) to undertake new ventures and to enhance existing ones. To do this we have to conserve the University's all too limited resources. Therefore, I must again ask your help in what promises to be a continuing struggle to keep expenses down.

Sheldon Hackney

Sheldon Hackney

SH/et

PRINCETON UNIVERSITY

REPORT OF THE PRIORITIES COMMITTEE TO THE PRESIDENT

Recommendations Concerning the Budget for 1975-76

January 14, 1975

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INTRODUCTION

This year's Report of the Priorities Committee is divided into three basic parts. Because of the severity of the financial problems we face, this report is an interim one, describing the progress the Committee has made to date in dealing with these problems. In Chapter I we discuss Princeton's financial situation in general, how it has changed over the last several years, and how we expect it to change in the years immediately ahead. In Chapter II we discuss the decision-making process as we envision it and the role of the Priorities Committee in that process. We also discuss in general terms how the Committee has gone about its tasks this fall and how we arrived at this particular set of recommendations. Finally, in Chapter III we report our specific recommendations for the next fiscal year (FY 76) and our reasons for making them.

As always, the Priorities Committee owes much to all those members of the University community who participated in the budgetary process. First of all, there are the many department chairmen and office heads who spent so much time and energy preparing their budget requests. Next we want to thank the various Deans and other administrators who reviewed these requests, prepared summaries and interpretations of them for the Committee, and, in several cases, met with the Committee to answer our questions. The Committee has profited enormously from their expert assistance and, in particular, from their openness and candor in discussing what were often exceedingly complex and sensitive issues. We also want to thank the staff of the Controller's Office who helped assemble all this material and prepared the budget summaries and the four-year projections. Finally, the Committee has benefited greatly from the contributions of those individuals who have met regularly with us, either at the suggestion of the Executive Committee of the Council or as stipulated in the Charter of the Council: Mr. Henry E. Bessire, Vice President for Development; Mr. Paul B. Firstenberg, Financial Vice President; Mr. Anthony J. Maruca, Vice President for Administrative Affairs; and Dr. Richard R. Spies, Assistant Provost and Executive Secretary of the Committee. We are also indebted to Mr. Christopher McCrudden who acted as Recording Secretary for the Committee and was an invaluable liaison with the Controller's Office.

Candace A. Conway '76
Joyce Freedman
Aaron P. Harber '75
Bishop C. Hunt, Jr.
Aaron Lemonick
Paul Michael Lion
Janet M. Martin
Henry N. Massey '76
Richard E. Quandt
Christine A. Riley GS
Carl W. Schafer
Stuart C. Schwartz
Russell A. Smith '76
Lyman Spitzer, Jr.
Cornel West GS
Sheldon Hackney (Chairman)

I. REVIEW OF THE CURRENT FINANCIAL SITUATION

The financial situation of Princeton University has changed suddenly and dramatically. It is significantly worse than it was when this Committee issued its last report. To put it as simply and bluntly as possible, the University is faced with a basic readjustment in its standard of living amounting to something on the order of two million dollars even if we take all the actions recommended in this report. Expenses have risen dramatically over the last year, especially for energy related items, and income has simply not been able to keep pace, resulting in a deficit for 1975-76 (FY 76) that is currently projected to be $1,662,000. The situation is very serious, and forceful action must be taken as quickly as possible to get the budget back into balance. Both because of the sudden arrival of the large uncontrollable cost increases that have caused this deficit and because of the magnitude and complexity of the adjustments we will have to make, we do not believe that it will be possible to achieve a balanced budget in FY 76. We feel strongly, however, that our objective should be to produce a balanced budget in FY 77.

The purpose of this report is to present the Committee's specific recommendations for FY 76 in a number of areas and to describe the overall budget picture as it now appears. Because of the severity of the problems the University faces, however, we do not feel that these projections are acceptable as they now stand. We intend to continue meeting through the spring to identify ways to reduce expenditures even further or to increase income. We are hopeful that at least some of the reductions we will be recommending can be implemented in time to affect the FY 76 budget (and reduce the projected $1.7 million deficit), although we expect that many of the actions we will be forced to consider will take much longer to effect (because of legal commitments as well as purely practical considerations). In any event, we expect to submit further specific recommendations to the President late in the spring, and we will report our recommendations to the University community at the same time. The report we are issuing now is an interim report, a description of work in progress.

As an historical footnote, we should mention in passing that the budget-balancing approach we are taking here was used successfully by the Committee four years ago. At that time, a sizeable deficit needed to be eliminated, and our predecessors also found that a "spring round" of meetings was necessary to achieve this result. Of course, we need to recognize that the job will be tougher this time if for no other reason than the fact that a particular activity can only be eliminated once (the cuts made four years ago have not, by and large, been restored since then). The important point, though, is that the approach to financial stability we are now recommending has worked before for Princeton, and we are resolved that the University's fine "track record" is going to be maintained.

The basic reason for the current crisis is really quite simple: the University has been squeezed by inflationary increases in the cost of everything we buy, especially energy, while the current combination of inflation and recession together with the depressed stock market has made it difficult to generate the funds necessary to pay those costs. Cost increases are not a recent phenomenon, of course. It is well known that education, like the performing arts, is a "labor-intensive industry" and thus subject to an inexorable tendency for costs to rise relative to costs elsewhere in the economy, and relative to its traditional sources of income. Back in 1968 President Bowen wrote: "The economic implications of the technology of education would lead us to expect costs per student to rise inexorably even if universities avoided all temptations to embrace new fields and new techniques, to accept broader responsibilities in the world at large, to educate more graduate students relative to undergraduates, and to do more research. That is, even if universities were content to turn out the same 'product' year after year, they would still be subject to increasingly severe cost pressures.... The factors primarily responsible for productivity gains -- new technology, an increasing stock of physical and human capital, and economies of large-scale production -- have simply not affected the education 'industry' to anything like the extent to which they have affected, say, the automobile industry."[1]

While these sorts of pressures will always be with us, the important thing to note about our present situation is that there has been a sudden and absolutely unprecedented increase in certain costs which could not be accommodated immediately. To cite the most startling example (discussed in more detail below), our energy bill is expected to triple in a two-year period -- adding something like $4 million to our cost base even after allowing for the savings flowing from our stringent conservation efforts.

The financial picture of the last ten years is summarized graphically in Figure 1. With the exception of FY 66 the budget was balanced during the latter half of the 1960's as both income and expenses grew at about 8% per year. This was a relatively prosperous period for higher education in general, particularly for graduate education and sponsored research, and Princeton shared in that prosperity. In 1970 and 1971, however, the rate of growth of income declined dramatically, with graduate student support the area hardest hit. For Princeton this slowing down in the growth of income resulted in two straight deficits (FY 70 and FY 71) totaling approximately $2.5 million. It also resulted in the formation of the Priorities Committee and a series of steps to reduce expenditures and increase income. As a result of those actions combined with the increases in enrollment attendant to the implementation of coeducation, we managed to get the budget back into balance for FY 72 and FY 73.

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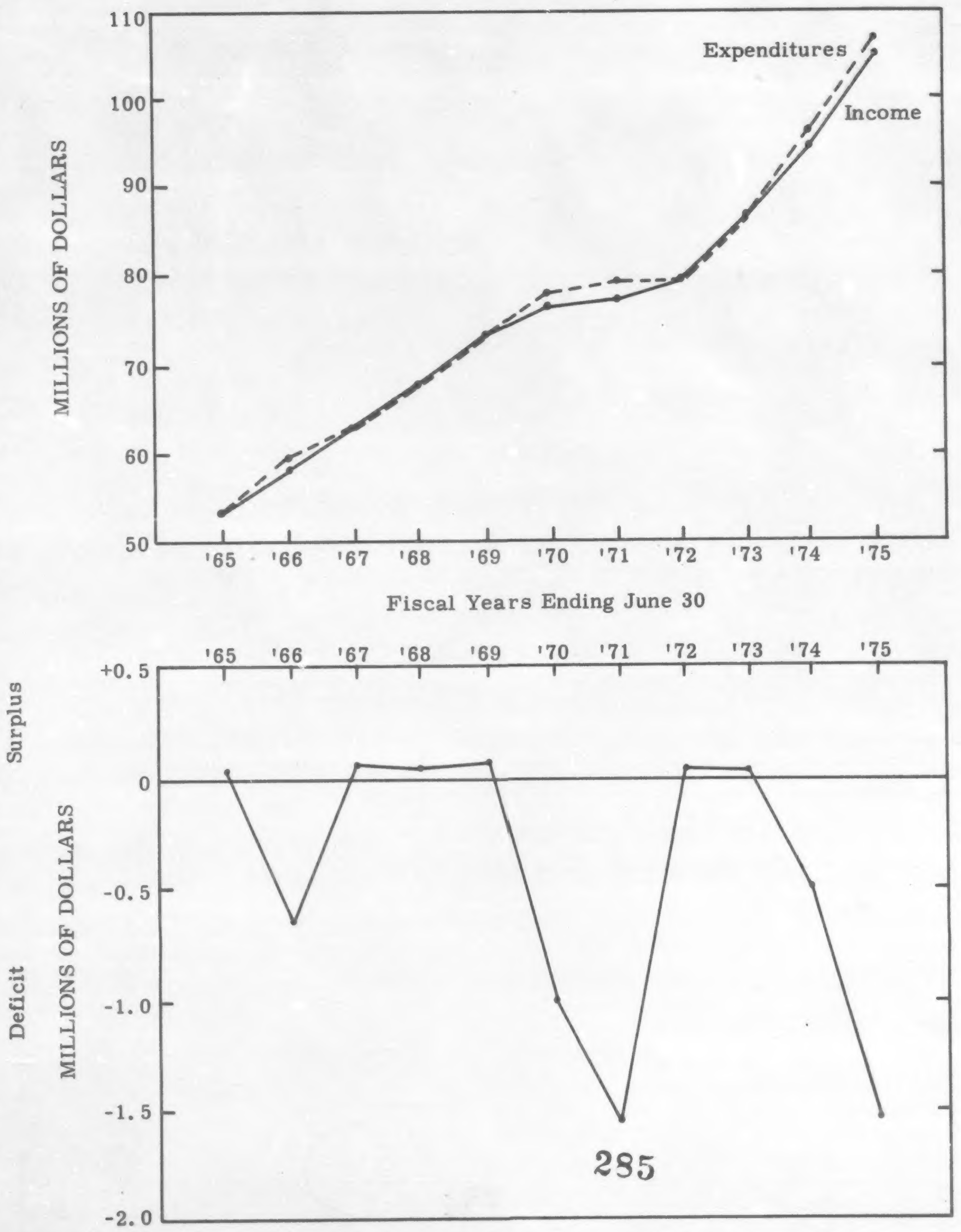
[1] William G. Bowen, The Economics of the Major Universities, Carnegie Commission on Higher Education, Berkeley, California, 1968, p. 13.

Figure 1
Princeton University Operating Budget
Total Expenditures and Total Income
Surpluses and Deficits
FY 65 - FY 75



The University's current problems are caused mainly by outside economic forces beyond our control, namely inflation, recession, and energy shortages. The energy situation alone would have been enough to upset the financial equilibrium we had worked so hard to establish and to drive the budget well into the red. In FY 73 and FY 74 the University spent approximately $1.7 million and $2.1 million respectively for its total energy needs (oil, natural gas, and electricity). For the current year we have budgeted just over $4 million for the same items, despite a significant cut in energy consumption due to our conservation program. For next year that number is expected to rise to $6 million with further increases of about a million dollars in each of the succeeding three years. If these trends continue we could be spending as much as $10 million on energy by 1980, as opposed to less than $1 million back in 1970.[2/] Even if nothing else had happened, these increases alone would have required some fairly drastic actions to reduce expenditures elsewhere in the University and to increase income.

Energy is not the only commodity for which prices have been increasing, however. The costs of food, paper, books, construction materials, and almost everything else the University has to buy have gone up dramatically over the last two or three years. Between 1964 and 1974 the GNP price deflator (a measure of the prices for all goods and services produced in the economy) increased about 50%; over the same period a price index of goods and services typically purchased by colleges and universities rose by more than 75%.[3/] As a result of these increases in

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[2/] These numbers, alarming as they are, do not include the full effects of the national energy program currently being discussed in Washington.

[3/] See "Higher Education and National Affairs," American Council on Education newsletter, November 22, 1974.

costs and increasingly tight budgets, departments and offices throughout the University have had to make painful choices about how they spend the funds allocated to them.

The current recession has also begun to have an impact on the University's budget, principally through its effect on endowment income. The University generally spends the income it receives in the form of dividends and interest (except income from restricted funds where the expenditure would violate the restriction). The bulk of the endowment funds are in the Primary Pool, 80% of which is in common stocks. The smaller but still substantial Secondary Pool is entirely fixed-income investments.

Our per-unit endowment income has risen at an average annual rate of 5% over the last five years. These increases are the result of the continuous increase in corporate dividends and interest rates. This growth is, of course, supplemented by additions to principal through the very generous gifts and bequests of alumni and other friends of Princeton. Based on the current economic climate, however, it is reasonable to expect that endowment income will grow far more slowly over the next few years. Although income forecasts are extremely difficult in this environment, corporate dividend growth has slowed substantially in recent months, and dividend reductions are expected to occur during 1975. Interest rates, primarily short term rates, which hit all-time highs in 1974 are now declining and may continue to do so for some time. Translating these trends into their impact on the University, we expect endowment income per unit to increase by only 3-1/2% in FY 76, followed by an actual decline in FY 77 and a gradual recovery in the following years.[4/] In the current economic climate one would not expect that an increase in the rate of gifts

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[4/] At Princeton it is dividends and interest earned during the previous year that are spent as endowment income. Thus the income to be spent in FY 76 is actually being earned this year, and the FY 77 income will be earned between June 1, 1975 and May 31, 1976.

and bequests could offset the decline in dividends and interest. The clear implication, then, is that for the next few years it is unlikely that the rate of growth in our endowment income will be sufficient to keep pace with the normal expectation of expenditure growth, let alone the inflationary rates of the last few years.

In the past the Priorities Committee has always included in its report a four-year budget projection called the Provisional Plan. The last two years this Provisional Plan showed a string of balanced budgets four years into the future accompanied by a detailed list of assumptions about every major element of income and expenditure. The purpose of that exercise was to demonstrate that it would be possible to balance the budget in future years and to show the University community the kinds of actions that would be required to meet that goal. The Priorities Committee has always considered the making of recommendations concerning long-range planning one of its most important responsibilities, and the Provisional Plan was the principal device we used to perform that task.

Unlike the reports of past years, this interim report of the Priorities Committee does not yet contain a Provisional Plan showing a string of balanced budgets. Indeed, if no further actions were taken to curtail spending and increase revenue, we would face the chilling prospect of a series of deficits ranging upward from two million dollars. The Committee believes strongly that such a string of deficits would be intolerable, and we are committed to achieving a balanced budget by FY 77.

In the short run Princeton has sufficient capital reserves to weather an occasional deficit, even a deficit of the size being discussed here. This is an advantage that many schools do not have. If we did not have these reserves, we would have no choice but to balance the budget immediately; our very survival would depend upon it. In a sense, slashing spending drastically across the board would ensure some degree of financial stability, but we believe that it would be disastrous educationally. Obviously, we are at the point where we must consider sharply curtailing, or even dropping, entire activities in both the academic and supporting areas. However, to do this hastily or haphazardly would, in our opinion, almost certainly cause permanent damage to the University's basic educational program. If Princeton is to continue to serve its various missions with the same high standards of performance it has demonstrated in the past, the process of cutting back must be done as carefully as possible. The University is fortunate to have the capital resources to allow it to do just that.

At the same time, it is important to understand that no university, not even one with the financial resources Princeton commands, can afford to run deficits for very long. For several decades Princeton's endowment -- through a combination of skilled management and the generosity of the University's supporters -- has provided nearly one-fifth of the University's operating income even though the budget has grown fourfold during this period. For our endowment to continue to provide such a constant share of a growing University budget, it will require continued gifts and legacies, skilled investment management, and a healthy economy. But, in part at least, the amount of income we have available in the future depends upon the rate at which we spend endowment resources today. When we run a deficit in our operating budget, we have to finance it by drawing down our reserves of expendable capital funds. This automatically reduces the size of those reserves and thus their ability to produce income in the future. In other words, if we spend at too great a rate now, the income available in the future will not keep pace with our needs even if the stock market turns around and even if we are fortunate enough to continue to receive generous gifts and legacies. It is clear that spending reserves now at the expense of the future would not solve any of the problems that led to a deficit in our current operating budget; it would merely postpone the day of reckoning.

This is a particularly difficult time at which to finance an operating deficit by drawing down expendable capital reserves. Over the last two years we have suffered a substantial loss in endowment wealth as a result of the worst stock market decline since before World War II. The severe market drop has affected virtually every investment portfolio and led to a significant decline in the market value of the endowment. Running a series of deficits now would only serve to reduce the value of our invested funds even further. It would also mean that we would be forced to withdraw funds from the market at precisely the time when we think securities are substantially undervalued.

Princeton is certainly not the only college or university with serious financial problems at this time. Inflation has hurt every institution to some extent and the cost of energy has been a particular problem for many of them. Harvard, Stanford, Dartmouth, and many other schools have already publicly announced that they expect large deficits this year and next, and almost all these schools have recognized the need for retrenchment. Princeton is clearly not alone in its present predicament, but we do have at least two advantages in dealing with this situation: (1) unlike many other heavily endowed institutions, we have not been spending our capital resources at an unsustainable rate, and (2) we have an established procedure for setting priorities and making difficult educational and financial decisions. The Priorities Committee, the President, the Trustees, and the entire University community have consistently demonstrated both the will and the ability to deal with tough financial problems.

If this University is to maintain and enhance its programs of education and scholarship, we have no choice but to reduce the base of operation by roughly another two million dollars. Deciding how that can best be accomplished is the task to which the Priorities Committee, and indeed the entire University community, must turn its attention over the next several months.

The farther one looks ahead the more uncertain our budget projections become. A small deviation from past trends can produce a very different result. Indeed, given the unusually uncertain nature of the current economic situation, the swings in income and expense may well be much wider in the future than they have been in the past. For example, a difference of 10% in the price of energy -- or in energy usage such as might be caused by an abnormally cold (or warm) winter -- would change the deficit by approximately $600,000. This uncertainty does not change the Committee's basic position, however. Even if these swings do occur, they are at least as likely to increase the deficit as they are to decrease it. We simply cannot afford to do nothing in the hope that somehow our problems will all disappear.

The Committee recognizes that a great university cannot afford to stand still if it is to maintain its greatness. If Princeton is to remain in the forefront of American higher education, we must continue to explore new fields of knowledge and to develop new programs of instruction. Increasingly we will have to learn to give up existing activities in order to shift resources into these new enterprises. But in addition we must continue -- and even intensify -- our efforts to find new sources of funds. We believe that private higher education in general, and Princeton in particular, represents an essential and viable alternative to state-supported institutions. One of the ways we can convince both present and potential supporters of Princeton that we are indeed a sound institution is to prove that we can manage our resources wisely and efficiently. To do that we must show that we can live within our available resources and at the same time maintain our commitment to excellence in education. We have shown in the past that we can do both these things, and we mean to continue to do so in the future.

In the remaining sections of this report we discuss both our specific recommendations about the steps we believe should be taken in the short run to reduce the deficit (Chapter III) and the process by which we hope to identify the longer-run reductions designed to get the budget back into balance by FY 77 (Chapter II).

II. THE WORK OF THE PRIORITIES COMMITTEE

In submitting its recommendations to the President in the form of a report that will be generally available to the public, the Priorities Committee wishes to make clear what it conceives its function to be and how it seeks to carry out its responsibilities.

The purpose of the Priorities Committee is to advise the President on matters that affect the making of the budget for the succeeding fiscal year and that underlie long-range plans for resource allocation. Members of the Committee understand, as should other members of the University community, that the Committee's recommendations are only advisory. The weight given by the President and the Board of Trustees to the Priorities Committee's report depends upon the force of the arguments and the evidence presented in the report itself. Since the inception of the Committee five years ago, the President and the Board of Trustees have relied heavily on its recommendations in meeting the financial problems that have confronted -- and continue to confront -- the University. In this, the sixth Report of the Priorities Committee, we have built upon the work of our predecessors, and we have attempted to live up to their high standards.

The Priorities Committee is one of the seven charter committees of the Council of the Princeton University Community. Its members are nominated by the Executive Committee of the Council and approved by the Council as a whole. As stipulated in the Charter of the Council, the Priorities Committee has sixteen regular members: three administrative officers serving ex officio (the Provost, who is chairman; the Dean of the Faculty; and the Treasurer); six faculty members (including at least one from each of the four academic divisions and at least one non-tenured member); four undergraduate students; two graduate students; and one representative of other groups on the Council (the office staff in the case of this year's Committee). In addition to the regular members, the

Financial Vice President, the Vice President for Administrative Affairs, and the Vice President for Development meet regularly with the Committee, and the Assistant Provost serves as its executive secretary.

In many ways the work of the Priorities Committee has been more difficult and more frustrating this year than at any other time in the Committee's six-year history. The University's financial situation has worsened significantly since we issued our last report last March. Just when we thought we had weathered the financial crisis of a few years ago, we were confronted with a whole new, and in many ways more difficult, set of problems. We are now projecting a deficit of approximately $1.5 million for the current year, and, despite all of the cost-cutting and belt-tightening achieved to date, we are unable to project a balanced budget for 1975-76. This means that more cuts will have to be made to get our financial house back in order. The process is all the more difficult because the reductions that have been made over the past several years cannot be made again.

As we begin the difficult job of identifying areas where further reductions can be made, it is important to understand what steps have already been taken to reduce the deficit. If all requests submitted by departments were approved and if tuition and other fees were kept at the levels projected in the Provisional Plan described in last year's report, the deficit for next year would exceed five million dollars. The deficit of $1.7 million projected in this report, while only an interim projection subject to further pruning during the spring, already reflects a very careful review by the administrators who are responsible for different parts of the budget as well as a whole set of specific recommendations developed by this Committee. Obviously this review was much tougher this year, and the actions being recommended much more painful than they have been the last few years. A measure of the seriousness of our current situation is the fact that even these tough measures leave us with a deficit which, if realized, would be the largest in Princeton's history.

It is worth dwelling for a moment on the mechanics of the budgeting process here at Princeton. The first step is always the submission of budget requests by the academic departments and programs and the various administrative offices. In order to assist in the preparation of these requests and to convey to department chairmen and heads of offices the Committee's sense of the financial constraints under which we are operating, a set of budget guidelines was constructed during our first few meetings in September. The main reason for these guidelines was to discourage the submission of proposals for expansion which we knew in advance could not be supported. These guidelines were discussed at some length in the Committee and then sent to department chairmen and heads of offices in the form of a memorandum from the Provost. A copy of that memorandum is included as Appendix B of this report.

The next step for the Committee in the budget process is the review of those requests. To this end the Committee met throughout the fall with the Deans and other University officials who are responsible for major budgetary units. In particular, we discussed the following topics in some detail: tuition, Dormitory and Food Services, faculty and staff and married graduate student housing, faculty staffing, the Library, the Computer Center, McCarter Theatre, athletics, the operation and maintenance of the physical plant, security, graduate student support, undergraduate student aid, and faculty and staff salary allocations. We also discussed a proposal from the University Research Board concerning the indirect cost rate charged on sponsored research contracts. In addition, the operating expenses and supporting staffs of academic departments and programs and the complete budgets of administrative offices were reviewed by the central administration and the results of that review were discussed with the Committee.

In these fall meetings members of the Committee had a chance to ask questions of the officials responsible for putting together the different budgets. At the same time these officials had a chance to explain their budget requests and to give the Committee some sense of what would happen if the requests were not approved or approved at a lower level. Frequently, the Committee asked an administrator for his or her assessment of the effects of reducing the budget requested by some arbitrary amount, say $100,000 or 10%. We have relied heavily on the answers to these questions, as well as our own perceptions of the relative importance of various activities, in making judgments about the priorities to be accorded different kinds of expenditures. These priorities are reflected in our final budget recommendations.

The last few years we were able to identify sufficient cuts during this process to achieve a balanced budget. This year we were not able to do so; we feel that we are now at the point where further cuts would do serious and permanent harm to the University or else are of the sort which require much more extensive consultation and more careful study. We do not believe that it would be in the best interest of the University to make additional cuts hurriedly, although clearly they will have to be made without undue delay if we are to achieve a balanced budget in a reasonable period of time. In this sense, then, this report should be looked upon as a progress report rather than a final blueprint for financial stability. From here on, as the Committee continues its work this spring, we believe that it will almost certainly be necessary to look for entire activities that can be dropped or at least significantly curtailed. If we are unable to identify sufficient savings in the review of academic, administrative, and student-related activities described below, however, we will have to come back and look at all these areas again.

It is important at this point to recall -- and to reaffirm -- the basic principle that has been adopted by the Priorities Committee from its earliest days: It is far better for the University to do a smaller number of things, and continue to do them well, than to accept a general reduction in the overall quality of the educational program. If they have accomplished nothing else, our discussions this fall have convinced us of the wisdom of this policy. Although it is always difficult to drop an activity -- an activity that was initiated only because a signficant number of people thought it would improve the University's program of teaching and scholarship -- we believe that this is a much wiser course of action than simply to cut the budget by a certain percentage in all areas, as some other universities have done. Clearly a certain amount of belt-tightening is possible -- and even desirable -- at Princeton, as it probably is at most other colleges and universities. However, we believe that there is very little "fat" in our proposed budget and certainly not enough to solve our current financial problems.

In the course of our deliberations this fall, we looked at budget requests much harder than we have in several years, and we are recommending less than requested in almost every case. It is important to remember, however, that the budget base was cut by nearly two million dollars just four years ago and that very few of those cuts have been restored since then. As our Treasurer, Carl Schafer, continually reminds us, you can only eliminate a particular layer of budget "fat" once; sooner or later you will be cutting out "muscle." The only real solution for our current financial woes has to involve cutting the base of our operations.

We are now in the process of trying to identify further cuts in the base of operations. We are looking in three basic areas: administrative functions and other support services; academic departments and programs; and residential, dining, and other student-related activities.

With regard to administrative areas, significant cuts have already been identified and the savings from them incorporated in the budget projections contained in this report. Normally at this time the Committee would recommend the adoption of the budget for the succeeding year as it now stands. This year, because the projected deficit of $1.7 million is unacceptably large, there will be an additional cycle of budget reductions during the spring term in order to further close the gap between expenses and income. The Vice Presidents and other senior administrators have already begun discussing administrative functions that might be dropped or sharply curtailed. These cuts will almost certainly imply a drop in the level of service currently enjoyed by students and faculty and, though such savings are absolutely necessary, they ought to be selected with great care.

It is important to acknowledge explicitly that we are contemplating a reduction in services which facilitate the teaching and research activities of students and faculty. It would be nice if there were supporting services whose absence would not be noticed, but each of the various administrative functions responds to some demonstrated need of the institution, including recently the need to comply with governmental regulations and reporting requirements. If eliminated, they will be missed by one group or another. We must therefore be careful not to act too hastily nor to cut too deeply into essential activities; we cannot, however, afford to do nothing.

In the case of academic departments and programs, the Provost, the Dean of the Faculty, the Dean of the College, and the Dean of the Graduate School have already begun looking for areas in which our involvement might be curtailed. In line with the basic principle of continuing to do only what we can do very well, they are trying to identify fields of study in which Princeton has no truly unique contribution to make. We continue to believe that excellence in undergraduate education requires breadth as well as depth, but clearly the loss of some activities would be less injurious than others. On the graduate level, the truth of this statement is even more obvious. We believe that in a time of financial stringency we should concentrate our all-too-limited resources on the activities in which Princeton has either proven strength or an as yet untapped but clearly high potential, and to leave at least some of those fields in which we do not have any unique strength to other universities. Although this is particularly difficult in an institution where excellence is the rule, we think that it is the only way to avoid damaging the academic core of the University and to preserve its basic educational strength.

One must, of course, be very careful about cutting academic activities. The interrelationships among fields of knowledge are exceedingly important -- and exceedingly complex. The process of identifying possible cuts -- and implementing them if that becomes necessary -- must be as careful and as deliberate as possible. As we see it, the first step in that process is for the Provost and the Deans to identify programs which they believe could be substantially cut back or dropped without doing irreparable damage to the University's basic educational program. Their recommendations should be discussed with the appropriate faculty committees and, where possible, with faculty and students in those and related programs and various other faculty and student groups who might be affected. In some cases it may be appropriate to consult people outside the University who are knowledgeable in the field. The question can also be brought before the full faculty for discussion if that seems appropriate. Finally, all the arguments presented -- and the consensus if there is one -- should be brought back to the Priorities Committee. The Committee can then weigh these cuts against those proposed in other areas of the University and make some judgment about the relative importance of these different activities. It is on the basis of this judgment that we will make our final recommendations to the President. We hope that significant progress can be made in this endeavor during the coming months -- and we expect to have some specific recommendations before the end of the spring term -- but we recognize that the entire process may not be completed before next fall. The actual implementation of these cuts may, of course, take considerably longer since certain commitments have been made and must be honored.

The final area of review is the whole range of services grouped under what we have generally called "student services." This includes all the University-supported activities in the dormitories and dining halls, in the residential colleges, in the Student Center, and lots of other nooks and crannies throughout the University. Here we have asked the Dean of Student Affairs to take the lead in identifying possible program cuts. In conducting this review Dean Simmons will obviously be consulting with the appropriate student and faculty groups as well as with her own staff and with the Vice President for Facilities and various Dormitory and Food Services people. As in the case of administrative services, it is important to realize that student services are a response to the legitimate needs of students. As in other areas, reductions in student services have to be considered very carefully and eventually have to be weighed against those contemplated in the academic and administrative areas. We have tried very hard not to prejudge that issue and have instead asked for a list of possible cuts from all three areas.

Before leaving this subject we should stop and look again at another of the basic principles that has guided us throughout the Committee's deliberations: the most basic and fundamental resource of any university is the people who care about it, who work in it and for it, and who are the heart of all its activities. As we move ahead with the readjustments of the next several months, readjustments that seem unavoidable if Princeton is to continue as a great university, it is essential that we remain sensitive to the concerns of all members of the University community: students, faculty, staff, alumni, parents. We believe that necessary changes should be phased in whenever possible, so as to minimize the impact on all these groups. We also believe that reductions in staff should be accomplished, wherever feasible, by attrition rather than by termination and that every effort should be made to relocate people in other areas of the University or elsewhere if their current jobs are eliminated. Above all, we believe that the whole review process should be as open and as candid as possible, so that as many students, faculty, staff, and alumni as possible have a chance to make their opinions known before any action is taken. We think it is important that, wherever possible, activities not be dropped without consulting the people most directly involved.

We might say a few words at this point about the relationships between the Committee and the rest of the University community. Throughout our deliberations members of the Committee are encouraged to discuss the issues confronting us as widely as possible and to get some sense of the opinions of their colleagues. Members are thus able to bring to our deliberations a more informed sense of what is important to the basic health of the University. At the same time members of the Priorities Committee have an unusual opportunity to learn a great deal about the University's financial situation, and they are meant to share their understanding with other members of the community.

It is clear, however, that this kind of informal consultation is not always as wide as one would like. Because of the pressures of time, Committee members are often unable to talk with many people outside their own particular circle of friends and acquaintances. In order to broaden communication with the University community, the Committee has made a conscious effort to solicit the views of a wide range of people, both on specific problems facing the Committee and on general questions of resource allocation. Our subcommittees on the Library, the Computer Center, and McCarter Theatre have been meeting throughout the fall and have discussed the problems involved in these areas with a fairly wide group of people. In addition, groups of us have met at various times with other members of the University community to discuss their concerns and their problems. We hope that this kind of communication can be continued and expanded.

It should be understood, however, that the work of the Priorities Committee could never be conducted by poll-taking or referendum, or even by general debate. In order to make informed decisions about any area of the budget it is absolutely essential that a person (or group of people) know what the problems are in all other areas. It is also essential that everyone involved in the Priorities Committee process be able to express his or her views freely and openly, without fear of public misinterpretation. Indeed, one of the great strengths of the Committee's present system is that we are able to discuss highly controversial issues with complete candor and individual members are able to form their own conclusions -- and to change their minds -- without outside pressure.

Having discussed at great length the mechanics of our deliberations, it is worth dwelling for a few moments on the Committee's most important characteristic: the general tone and character of its discussions. This report is a unanimous one but not because we arrived at our conclusions quickly or easily. All the members participated in what were generally uninhibited and candid discussions of all the issues, often expressing very different points of view. All of us generally endorse both the overall set of recommendations and the general statements of principle and policy contained in this report. While each of us might prefer to see one or more particular recommendations changed in some respect, the differences among us are remarkably few. The set of recommendations reported here represents our best sense, as a group, of how the University ought to respond to the financial difficulties in which we find ourselves.

III. SPECIFIC RECOMMENDATIONS FOR 1975-76

The purpose of this section of the report is to discuss in some detail the Committee's specific budget recommendations for 1975-76 (FY 76). In formulating these recommendations we were, of course, painfully aware of the University's general financial plight described in Chapter I. The Provisional Plan adopted by the Committee last year and described in some detail in last year's report had to be revised in almost every area. In several cases these revisions mean substantial reductions in expenditures or increases in charges. All of these recommendations and our assumptions about the rest of the budget are summarized in the table and notes which accompany this report (Appendix A).

Our specific recommendations fall into fifteen basic categories. The first four concern the income side of the budget; the other eleven deal with expenditures.

1. Tuition. The Committee recommends an increase of $400 in tuition for 1975-76, to a total of $3,900 for undergraduates and $4,000 for graduate students.

In the course of our deliberations we have been continually, although reluctantly, faced with the inevitability of large tuition increases, both this year and for the foreseeable future. With energy costs having tripled in a matter of just two years and with other costs rising at inflationary rates, the University is forced to generate large amounts of new income. Tuition, which amounts to less than 20% of the University's total income, has to provide at least some of that new income. It is important to remember that tuition is one of the very few items on the income side that is actually under the University's control. Indeed, the problem today is at least partly the result of the fact that our other sources of income -- principally endowment earnings and gifts and grants of one kind or another -- have not kept pace with the rapid increases in costs. In this environment the University has no choice but to increase tuition.

Having said all that, however, we want to make it clear that we are deeply concerned about the effects of an increase of this magnitude, especially about the effects it might have on the composition of the student body. It is our strong recommendation that no student should have to leave Princeton for financial reasons. In order to insure this we are recommending that the financial aid resources available for undergraduate and graduate students be increased enough to cover these increases in tuition for students receiving financial aid. It should be noted, however, that scholarships for most students will not increase by this exact amount because of changes in family income and because of increases in the amounts we expect students to borrow and to earn in summer and term-time jobs. These recommendations will be discussed in more detail later in this report.

In addition to those students already enrolled, we are also concerned about maintaining the quality of our applicant pool, on both the undergraduate and graduate levels. We think it is particularly important that Princeton continue to attract qualified applicants from a wide range of cultural and economic backgrounds. We have been encouraged -- as have the Dean of the College and the Dean of the Graduate School -- by the recent increases in the numbers of applications to Princeton and by the quality and diversity of the applicants. Still, as we thought about a tuition increase of $400 we had to worry about what that would do to the applicant pool. To put this increase in perspective we looked at four different kinds of comparisons: first, we compared the increases in tuition with the general increases in prices and (more importantly) incomes over the last several years; second, we compared the income distribution of the current student body with that of earlier years; third, we looked at the schools to which students declining Princeton's offer of admission have gone to see if there have been any significant changes; fourth, we compared Princeton's tuition and other charges with those of our major competitors.

An increase of $400 is certainly not a trivial amount, but it should be pointed out that this represents an increase of only 11.4% (11.1% for graduate students). We do not want to minimize the magnitude of this increase or the impact it will have on students and their families, but at a time when prices in general have been rising at an annual rate of 12% or more we think this increase is not unreasonable. Indeed, the University's costs have been rising faster than 12% per year in the last year or two, and we believe that at least some of those costs must be passed on to students. We want to reiterate, however, our concern about low- and middle-income students and our commitment to providing sufficient financial aid resources to insure that no student has to leave Princeton for financial reasons.

The table shown below provides a comparison of Princeton's undergraduate tuition and other charges with median family income in the United States. Between 1954-55 and 1973-74 tuition rose by about 270%, but total charges increased by only 180%. Over the same period median family income rose by about 190%, which is less than the increase in tuition but slightly more than the increase in total charges. As the ratios shown in the table indicate, the income of the average person has at least kept pace with the increases in charges. There is no reason to believe, therefore, that our tuition policy has resulted in the systematic exclusion of any particular income group.

	Median Family Income in U.S.	Princeton Tuition	Tuition as a Percentage of Income	Princeton Total Charges*	Total Charges as a Percentage of Income
1954-55	$ 4,173	$ 890	21.3%	$1,700	40.7%
1959-60	5,417	1,450	26.8	2,400	44.3
1964-65	6,569	1,770	26.9	2,795	42.5
1969-70	9,433	2,350	24.9	3,510	37.2
1970-71	9,867	2,500	25.3	3,770	38.2
1971-72	10,285	2,800	27.2	4,180	40.6
1972-73	11,116	3,050	27.4	4,430	39.9
1973-74	12,051	3,300	27.4	4,760	39.5

*Tuition plus room and board.

We also looked at the income distribution of the last few freshman classes to see if that distribution has changed over time. In 1966, the first year for which data[1] are available, only 8.5% of Princeton's freshman class came from families with incomes in the bottom half of the national distribution; 61.5%, on the other hand, came from families in the top 10%. By 1973 those figures were 18.8% for the lower group and 49.6% for the upper group. These data show quite clearly that low-income students (and to a lesser extent middle-income students as well) make up a larger percentage of the undergraduate student body than they did only a few years ago. It is not at all surprising that Princeton students generally come from families with higher than average incomes; it is significant, however, that the trend has been toward *more* low- and middle-income students, not *fewer* as has been widely feared. This result seems to substantiate all the research we have seen which concludes that students with the highest academic ability and interests are not significantly influenced by financial considerations in their choice of a college.

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[1] It should be noted that these data are based on the responses to an American Council on Education survey conducted during fall registration in which students are asked to estimate their family's income. Obviously these data are not the most reliable in the world and must be interpreted with caution.

This conclusion is also supported by the pattern of colleges chosen by students declining a Princeton offer of admission. In 1967, 8.9% of the students who were admitted to Princeton on the undergraduate level but did not enroll indicated that they were going to a state university or some other public college. For this year's freshman class only 4.7% of the declines went to such institutions; over 56% of them, on the other hand, went to Harvard, Radcliffe, or Yale, schools that actually cost slightly more than Princeton.

The final factor in our decision to raise tuition was a very strong indication that most of the schools with which we normally compare ourselves are also considering increases of this order of magnitude. While most schools have not yet made firm decisions about tuition for 1975-76 and as far as we know only a very few have actually announced definite figures, we do know that other schools are subject to the same pressures Princeton is, and in informal discussions most of them have indicated that they are planning tuition increases as an essential element of their response to the problem. It is not very comforting to know that we are all in the same boat, but at least we can be reasonably confident that this increase will not significantly affect our ability to compete for the very best students on both the undergraduate and graduate levels.

2. Dormitory and Food Services. One of the areas hardest hit by inflationary cost increases has been Dormitory and Food Services. Food and fuel prices, the biggest items in the DFS budget other than salaries, have been increasing much faster than the general rate of inflation. The management of DFS has taken many steps to reduce expenditures and to provide a reasonable level of service as efficiently as possible. Bulk buying and

other economies have helped keep food costs down, and similar economies have been introduced in many other areas. In addition, the Committee is recommending a further reduction in the DFS budget of about $300,000. These cuts will, of course, mean a certain decline in the level of service provided students and others using DFS facilities, but at this point we believe that it is more important to keep costs down (and thus keep the increases in room and board rates and other prices as small as we can) than it is to maintain services at their current level.

On the undergraduate level we are recommending an increase of $100 in the room rate and $125 in the board rate at all University facilities. Despite these large increases and despite all our efforts at reducing expenditures, the undergraduate dormitory and dining system will just barely break even next year, even before the enormous capital costs of the system are counted. The basic problem is that the $225 represents an increase of only 13.4% while food and fuel costs have been rising at a much faster pace. Again we want to emphasize that we are also recommending that the financial aid budget be increased enough to cover these costs for students receiving aid.

At the Graduate College we are recommending average increases of $80 in the room rate and $70 in the board rate. For the last several years the Graduate College has experienced substantial -- and increasing -- operating deficits. The Priorities Committee, with the support of the Dean of the Graduate School, has consistently tried to reduce this deficit by both raising charges and reducing expenditures wherever possible. At a time when dollars are scarce and graduate student support is generally declining, we continue to believe that the resources which are available are best distributed directly through the fellowship budget rather than through University subsidy of the various living and dining facilities. That is the principle that the Priorities Committee has adopted in the past, and we continue to endorse it. We believe, however, that it would be unrealistic to expect to make much of a dent in the Graduate College deficit at a time when costs, especially food and fuel, are rising at such an extraordinary rate. We expect that the increases we are recommending (which amount to about 11%) will be sufficient to keep the deficit at its current level but not to reduce it by any substantial amount. We hope that it will be possible in future years to reduce that deficit.

It is worth noting that we have not tried to preserve any kind of "parity" in terms of room and board rates between graduate students and undergraduates. Our recommendations are somewhat different for the two groups and the arguments we have used to support these recommendations are also different. We have done this consciously and, we think, with good reason, principally because of the differences in the financial aid situations of the two groups. For undergraduates we have recommended a student aid budget large enough to cover these higher room and board charges for all those students who are unable to pay them themselves. On the graduate student level the financial aid situation is much different. First of all, fellowships are not awarded strictly on the basis of financial need, although need is a much more important consideration than it used to be. Second, fellowships from outside sources (particularly the Federal Government) have declined drastically in recent years, and University funds have not been able to fill in the gap completely. Third, and most important, the average fellowship has actually declined over the last few years, meaning that the average graduate student actually has less money available to pay these increased charges. We have tried to compensate for this somewhat by recommending some increases in the stipend levels for University fellowships, but it is painfully clear to us that the typical graduate student's lot is a very difficult one. In any event, the problems of the graduate student are quite different from those of the typical undergraduate, and we see no reason to impose any artificial notion of parity by recommending identical increases in room and board rates. We believe that each recommendation should stand or fall on its own merits.

3. Faculty and Staff and Married Graduate Student Housing. For the graduate student apartments in Butler Tract and the Lawrence Apartments we are recommending rent increases of 9% for 1975-76. This deviates slightly from last year's Provisional Plan which called for a 10% increase, and we expect it to result in a very slight increase in the operating deficits in these units. We are making this recommendation because we have been impressed time and time again by the financial plight of graduate students, especially those with children, trying to cope with the enormous increases in costs on what have been in many cases fixed or even declining levels of support. This impression has been reinforced by the informal discussions many of us have had with these students over the past year and by the observations of the Dean of the Graduate School. Obviously this small change in the Provisional Plan will not solve the problems they face, and in general we still believe that the most equitable way to distribute whatever resources are available for graduate student support is through the allocation of fellowships. At this time, however, we feel it is important to address the specific concerns of married graduate students and to at least keep rent increases to the single-digit level.

In faculty and staff rental housing we are recommending rent increases of 10% for next year. Because of the extraordinary increases in costs, even this increase will result in a significantly larger operating deficit in these units. For example, the increase in the cost of energy (heat and electricity) alone is expected to be almost $100,000 while a 10% rent increase will provide less than $200,000 in additional revenues. To put the problem in perspective, a rent increase of more than 14% would be needed simply to keep the deficit at its current level. We do not believe, however, that an increase of that magnitude is possible at this time given the other financial pressures on the people who live in these units. Therefore, we are recommending that we stick to the Provisional Plan increase of 10% and work gradually to reduce the deficit in future years.

4. Indirect Cost Rates. The indirect cost rate is the method by which sponsored research contracts are charged for their share of the general costs of operating the University. Direct costs such as faculty salaries, the stipends and tuition of graduate student research assistants, the salaries of professional research and technical staff, equipment purchases, and other expenses specifically attributable to a particular research contract are charged directly to that contract and paid for by the contracting organization (usually the Federal Government). Other costs such as the provision of heat, light, and power, secretarial support, and the cost of administrative offices like the Office of Research and Project Administration, are considered overhead and are not directly charged to specific contracts. Instead these costs are allocated to the fundamental activities of the University (instruction and research) using Government-approved accounting principles and formulas, and sponsored projects are charged their share of these "indirect costs." These costs are then allocated among the various sponsored projects on the basis of salaries charged directly to those contracts. The indirect cost rate is thus currently expressed as a percentage of salaries.

For the last few years the University has been charging research contracts less than the Government regulations would have allowed for indirect costs. This has been done explicitly in order to allow our faculty to compete more effectively for research contracts at a time when the real level of support for research by outside sponsors was declining. We think this was an appropriate policy at the time it was first adopted. Research is, of course, an integral part of the University's activities; indeed, it is virtually impossible in a university like Princeton to tell where the teaching ends and the research begins. It does not make sense, therefore, to act as if research were a separable part of the University which ought always to pay its own way. It seems entirely appropriate, indeed essential, for the University to support and encourage the research activities of faculty and students.

In spite of these arguments there are two reasons for looking again at the indirect cost rate this year. The first and most obvious is that the University's overall financial situation has worsened significantly in the last year. The University has to raise a significant amount of new income simply to continue at its current level of operation. The Priorities Committee is recommending large increases in tuition and other charges. It seems only reasonable to ask if sponsored research can pay more as well. The University Research Board has been considering this question for some time, and we support their conclusion that sponsored research is in fact able to contribute more.

The second reason for considering this issue at this time is that the University Research Board has just recommended a change in the method of calculating indirect cost rates. In essence their recommendation is to compute indirect costs as a percentage of what they call "modified total direct costs" rather than as a percentage of salaries. This report is not the place to go into the details of that recommendation; however, we do want to point out that the adoption of this new policy will make it more feasible for us to charge the full audited rate for indirect costs without significantly damaging our ability to compete for research contracts. Furthermore, there are at least some indications that other institutions with which we compete for research funds are raising their own indirect cost rates, thus limiting significantly the competitive impact of our own action.

The Committee, therefore, recommends that the full audited rate be charged for indirect costs. Because the adoption of this recommendation would result in large increases in the indirect costs charged to some contracts, we believe that temporary relief may be needed in some cases. To this end we believe that it would be appropriate to allow "forgiveness" of some indirect costs for a temporary period in cases where the Office of Research and Project Administration finds that such a step is necessary in order to avoid doing serious damage to a project. We also recommend that consideration be given in the future to two proposals of the Research Board designed to encourage and support the research efforts of faculty and students: a modest rebate for contracts paying tuition for graduate students serving as research assistants, and a research fund along the lines of the Higgins Fund which would be financed by general University funds and allocated by the Research Board. Until the financial benefits of charging the full audited rate are realized, however, we do not believe that either proposal is possible.

5. Faculty Staffing. The faculty of a university constitutes its most basic element, and continuing care needs to be taken at a time of tight budgeting to avoid losing out in the competition to attract and retain the best teacher-scholars. Clearly the building and maintaining of a high quality faculty constitute a long-term investment that could be seriously impaired by the imposition of arbitrary cuts. We believe, however, that some careful pruning is possible without seriously damaging our basic programs of teaching and research. We are recommending that the number of full-time equivalent faculty charged to the teaching budget be allowed to decline somewhat next year, by approximately eight positions.

As always, the Priorities Committee has not discussed staffing levels for individual departments. Instead we have relied on the Dean of the Faculty, in consultation with the Dean of the College and the Dean of the Graduate School, to review departmental requests and then present a set of overall recommendations to us. It was this overall set of recommendations that served as the basis of the Committee's discussion of faculty staffing. We also relied heavily on the Dean's judgment as we tried to assess the impact of reducing the number of faculty. As a result of these discussions we believe that the cut we are recommending is possible for next year.

Over the long term we believe the size of the faculty will have to be reduced even further. Because most faculty members are either tenured or on three-year appointments, however, it is very difficult to reduce the teaching budget much more than 1% in one year. Even with the overall reduction in the number of positions we are recommending, some departments are going to get an increase in staff simply on the basis of their teaching needs. At the same time it may not be possible for all those departments with shrinking enrollments to contract at the same rate, either because none of their faculty are up for reappointment or because they are already down to their "critical mass," the minimum number of faculty required to cover the most important fields of study within that department. Over a period of several years, however, it is possible to respond to shifts in enrollment, and we believe that such actions will be necessary during the next two or three years in order to reduce the teaching budget even further.

It is important to remember, however, that faculty workloads (as opposed to teaching loads) have increased over the last several years and that a reduction in the number of faculty will mean a further increase in that workload. The Committee is particularly concerned about the growth in the demands on faculty time of committee work and other non-teaching, non-scholarly activities. It is discouraging to note that a large part of the increase in faculty over the last few years has, in fact, been soaked up by increases in non-academic activities. We think this is an alarming trend and one that should be reversed. We urge the CPUC, the faculty, and the administration to take up this question and to consider steps to reduce the non-academic responsibilities of the faculty.

6. Administrative and Supporting Services. The Committee notes that the last time Princeton realized substantial cuts in its base of operation (1971), the great bulk of those cuts occurred in the administrative

support areas where the staff was reduced by almost 100 positions. That was seen as an appropriate sense of priorities at that time, and we believe that it still is appropriate. Clearly the central mission of the University is educational, specifically teaching and research. It is misleading, however, to think of educational programs and administration as fundamentally competing activities. They are, in fact, complementary; indeed, effective management and adequate supporting services are absolutely essential if we are to preserve and strengthen the educational base of the University.

As in all other areas, however, we believe that administrative and supporting services can be reduced without doing irreparable damage. In general and academic administration we are recommending a reduction in total staff of approximately 15 positions, mostly through attrition and the elimination of vacancies. We also believe that the budgets for non-salary expenses should be reduced in a number of areas, and the budget we are recommending incorporates many of those reductions. Finally, we recommend that there be no net increase in the non-faculty staff in academic departments and programs. This is an especially difficult area to review since departments have such widely different needs for supporting staff. It is, however, one of the fastest growing areas of the University and one which we think requires special review at this time. We have asked the Treasurer and the Dean of the Faculty to examine departmental budgets for supporting staff and operating expenses and report back to us as soon as possible. We hope to be able to achieve substantial savings in this area over the next few years.

We realize that the cuts we are recommending for next year will result in a decline in the level of supporting services. There is no question but that administrative offices will be slower to respond to the problems and needs of faculty and students and that some services will simply not be available in the future. It is just not realistic to expect these organizations to keep doing more and more with fewer people. To some extent we will all have to get used to having less in the way of supporting services. We believe that this adjustment is possible, however, and, given our current financial situation, we think the reductions we are recommending in this report should be viewed as just a first step. As is the case with academic departments and programs, we believe that come further careful -- but extensive -- pruning is required.

7. Library. The Library, together with the faculty, forms the core of the University, the center around which any great university is built. The Princeton University Library serves many masters: a research-oriented faculty, a small but elite group of graduate students doing research in many diverse fields, and a high-quality undergraduate student body for whom independent research is an integral part of the curriculum. We believe that it has served them well in the past and, as one of the largest open-stack libraries in the country, it continues to serve them well.

The financial constraints of the last four years have caused problems, however, and the Library has suffered. In order to understand the implications of past decisions and to allow us to make more informed recommendations about next year's Library budget, we established a subcommittee to consider the whole range of problems connected with library finances. That subcommittee met throughout the fall with members of the Library staff and with a few groups of interested users. We have relied heavily on its members in reaching our final recommendations.

As background it is probably useful to look at what has actually happened to the Library budget over the last five years. The following table shows what has happened to expenditures on acquisitions, staff, and other operating expenditures since 1969-70. During this period the prices of books and periodicals have been increasing between 10% and 15% per year, while the Library's acquisitions budget has increased less than 8% per year.

Library Expenditures

(Thousands of Dollars)

	1969-70 (Actual)	1970-71 (Actual)	1971-72 (Actual)	1972-73 (Actual)	1973-74 (Actual)	1974-75 (Budget)
Acquisitions						
General Funds	542.0	654.9	679.6	788.6	828.8	860.2
Restricted Funds	631.8	668.4	535.3	689.3	804.8	840.4
Total	1173.8	1323.3	1214.9	1477.9	1633.6	1700.6
Staff	1862.1	2159.3	2293.4	2450.3	2647.3	3022.3
Operating Expenses	182.0	181.3	187.8	230.0	241.0	192.3
Total Expenses	3217.9	3663.9	3696.1	4158.2	4521.9	4915.2

The Library has achieved considerable savings by reducing the number of duplicate copies it purchases and by dropping subscriptions to little-used periodicals. There is a limit to what can be done, however, and we doubt that it will be possible to achieve significant new savings in the next year or two. We think that an expanded use of cooperative lending arrangements will save money in the long run, but the current system is too cumbersome and slow to be much help in the short run.

The Library staff has increased by roughly 14% since 1969-70. This is considerably larger than the increases allowed in most other areas of the University, but it has proved inadequate to meet the needs of a larger and more academically diverse group of faculty and students. In our efforts to concentrate the limited resources that were available on acquisitions, it appears that we have not increased staff as much as we should have. There have been problems in circulation and in preparations caused by the increased number of users (each of whom seems to be using the Library more than ever before) and the sheer size of the collection. The University Librarian now believes that increases in staff are at least as important as acquisitions,and we are convinced that he is right.

The budget for operating expenses has increased only slightly since 1969-70. The table does not show that growth very well because of a number of one-time expenditures (carrels, furniture, etc.) which are buried in the line marked "Operating Expenses."

The budget request from the University Librarian called for an increase of about $175,000 for the Library for 1975-76 (not including salary increases for the current staff), an amount consistent with the Provisional Plan described in last year's Report of the Priorities Committee. The request contained an increase of about $80,000 in acquisitions, $5,000 in operating expenses, and $90,000 for new staff. We are recommending that all but $50,000 of the requested increase be approved, resulting in a total increase of $124,500 in the Library budget for 1975-76.[2] Given the very difficult position of the Library at this time, we believe that this is an absolute minimum level of increase. During this period of financial crisis we do not believe it is possible to provide more support for the Library, but we think it would be a serious mistake to provide less.

8. Computer Center. The Committee recognizes the indispensability of a modern computer system to a university dedicated to excellence in education and research. At Princeton that computer system consists mainly of an IBM 360/91 located in the Computer Center and equipped with a series of remote terminals. This machine was one of the most powerful computers in the world when it was acquired and it still provides efficient batch processing services, especially for users with big research problems requiring a large number of calculations. For many users at Princeton the 360/91 is still the ideal machine. It has become painfully clear over the last few years, however, that there is a whole

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[2] The budget summaries in Appendix A show an increase of $159,000 because current vacancies in the Library staff are computed on an annualized basis for FY 76.

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range of computing services that the 360/91 simply cannot provide, or at least cannot provide in an economically feasible way. The most obvious of these is interactive computing.

Interactive computing, or time sharing, is being used effectively at many other colleges and universities and, according to all reports, has significantly enhanced the educational program in many areas. At Princeton some interactive computing has been available through an IBM 370/158, operated by the Computer Center under a facilities management contract with Educational Information Services (EIS), a public, non-profit corporation created by the New Jersey Department of Higher Education to provide computer services to the New Jersey state colleges. That service has been limited, however, and is not very well suited to the needs of most Princeton users. Moreover, when the contract with EIS expires on July 1, 1975, the 370/158 will be removed from the Computer Center and even that limited service will be gone.

For the last two years the Priorities Committee has recommended what amounted to a stand-pat budget for computing, with little or no provision for adding any new services or significantly improving the old ones. In spite of this, there have been a number of significant changes in the way computing is done at Princeton. The first of these is the increasing use of interactive computing and the coming -- and going -- of EIS. The second (and, to the Priorities Committee, more distressing) development has been the large increase in the volume of general funds needed to support the Computer Center. The main reason for this is that the use of the computer financed from general University funds has increased dramatically at the same time that sponsored research use has declined.

This second issue has been discussed at least briefly in the Committee's last two reports. We have consistently urged that general funds use of the computer be reviewed and controlled by the Provost and other members of the administration. When the 360/91 was first installed there was more than enough computer time for all users, including those who had outside funds to purchase it. In those days the general funds used for computing were allocated to faculty and students in almost unlimited quantities. Indeed, these funds were often referred to as "funny money." Now, however, computer usage has grown so much that any further increase in general funds use would drive away users with outside funds, thus increasing the dependence of the Computer Center on University funds. It appears that unlimited "funny money" is a luxury we can no longer afford.

Last August the Provost discussed this problem again in a memorandum sent to all department chairmen and heads of offices. (A copy of that memorandum is included in this report as Appendix C.) That memorandum explained that all general funds computer budgets would be held roughly at their 1973-74 dollar levels for 1974-75 and that requests for additional funds would be granted only in exceptional cases. Since computer rates are generally higher this year, this amounted to a cut of approximately 10% in real computer use. It appears at this time that this action substantially accomplished its objective; computing funds are being allocated much more carefully by departments and offices, and overall usage of the computer has dropped. Students and faculty still have access to the computer for their research and course-related activities, but many of the lower-priority uses have been eliminated. We believe this is a necessary step and we urge the Provost to continue this effort. We also recommend that general funds computing budgets for all departments and offices be kept at this year's level for 1975-76, adjusting only for rate increases. This means no further cut in the amount of computing departments and offices can do, but no increases either. Obviously, there will have to be some exceptions to this for departments and offices with extraordinary needs, but we think those exceptions should be very few.

The need for interactive computing has been discussed at some length in the Computer Center Committee and in a special subcommittee of the Priorities Committee. Those committees discussed several ways of providing interactive services at Princeton and concluded that the most reasonable solution was to lease an IBM 370/145 (or a comparable machine) which would be installed in the Computer Center and linked to the 360/91. This machine has a virtual memory capability and could provide a reasonable level of interactive computing for the different instructional, research, and administrative users. The Computer Center Committee endorsed this plan and recommended that the Priorities Committee include it in its budget recommendations to the President. (A copy of the Computer Center Committee's report to the Priorities Committee is included as Appendix D of this report.)

The Priorities Committee has reluctantly decided not to recommend the addition of the 370/145, unless additional outside income can be guaranteed in sufficient amounts to cover the added costs. The rental and operation of the machine would cost about $400,000 a year. When the University is facing a deficit of $1.7 million (for FY 76) and we are looking for new places to cut, we do not think that an expenditure of this size can be justified. We recognize that the need for interactive computing is a real one which will have to be met in the very near future; we simply do not believe that this is the year for this solution.

The addition of a new machine would, of course, expand the capability of the Computer Center in terms of the amount of computer time available, as well as the range of services. Indeed, if general funds budgets were kept at their current level, more than $500,000 worth of computer time would be available for sale, principally on the 360/91. If all that time could be sold, the 370/145 would more than pay for itself, but there is considerable uncertainty about our ability to find outside users to buy the time. The Committee believes that we should not take this risk in the current economic climate without definite assurances of outside funds. If such assurances can be provided, however, so that the 370/145 can be acquired without increasing the University's overall budget deficit, and if the problem of how to allocate terminals and computer time among students, faculty, and administrative users can be solved, we recommend that the proposal of the Computer Center Committee be approved.

In any event, in order to fill the gap left by the departure of EIS, we are recommending that $60,000 be allocated for the purchase of interactive computing services from an outside vendor. We recommend that these funds be administered by the Provost's Office and that the actual purchase of services be arranged through the Computer Center. We also recommend that departments and offices using these services have their regular computing budgets reduced by the amount spent on interactive computing.

9. McCarter Theatre. Three years ago the Priorities Committee recommended that University funds be allocated to McCarter Theatre in each of the next three years. These funds were intended to offset the Theatre's operating deficit and do not include the cost of the operation and maintenance of the building and other indirect costs covered by the University. Because the operating deficits of the Theatre have generally been larger than expected and because this is the third year of that three-year commitment, the Committee established a special subcommittee to review the status of McCarter Theatre.

The subcommittee met several times with Professor Daniel Seltzer, President of McCarter Theatre, and members of the McCarter Theatre staff. In the course of these discussions we became convinced that most of the findings of the Priorities Committee of three years ago still hold true. In particular, we concluded very early:

-- The Theatre contributes in many direct and indirect ways to the educational program of the University. The newly-formed Program in Theatre and Dance has benefited

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enormously from the opportunities presented by McCarter and by the availability of artists working at McCarter to assist in courses taught by the Program. More importantly, perhaps, McCarter enhances the cultural life of the University community and contributes in a very real albeit unquantifiable way to the education of all its members.

-- The Theatre is important not only to the University but to the larger community and region inasmuch as it is the only institution of its kind between New York and Philadelphia.

-- The economics of the performing arts in general, and of McCarter in particular, are such that the Theatre can never be expected to operate on an unsubsidized basis.

In addition, we were particularly impressed by the quality of the entire McCarter effort and by the enormous strides taken by the Theatre in its first three years under a new format.

The current estimate of the Theatre's operating deficit for 1975-76 is approximately $115,000. We recommend that the University commit this amount of support for 1975-76. We hope that this level of support can be continued beyond next year, but if at any time in the next few years it appears that the deficit will be larger than this (adjusted for inflation) we will want to review the situation. In addition, if the University's overall financial situation has not improved dramatically by next fall, the Committee might have to reconsider its recommendation for FY 77 and beyond. We are hopeful that efforts currently under way to raise additional outside funds for the support of the Theatre will make further review unnecessary.

10. Athletics. The Committee is enormously pleased about the progress that has been made in the last few months toward reducing expenditures for athletics on the Ivy League level. We were particularly pleased with the actions taken by the Ivy League presidents last month to revise the rules concerning the eligibility of freshmen to compete on varsity teams and to limit the number of full-time football coaches. The Priorities Committee has always recognized that the pressures of

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competition make unilateral cuts very difficult in athletics; actions that would be acceptable if they were taken by all eight Ivy League schools would have a much more serious effect if they were taken by Princeton alone -- on the morale of the athletes and coaches themselves, on our ability to attract outstanding student-athletes, and on the willingness of some alumni and other friends of Princeton to continue to support the University. We believe that League-wide action is necessary to achieve substantial savings, and we are encouraged by the recent actions of the presidents. We believe that even greater economies are necessary, and we urge the presidents and athletic directors to continue their efforts to achieve them.

In view of the seriousness of the current financial situation, the Committee has concluded that savings greater than those achieved by League-wide actions are necessary. In particular, we believe that it is possible to reduce somewhat the staff of the Department of Athletics and Physical Education, just as we believe that it is possible to reduce the size of the faculty and supporting staff. Indeed, we would find it very difficult to justify keeping this staff at its current level at a time when virtually every other element of the University is curtailing programs and reducing expenditures.

We recommend that the staff of the Department of Athletics and Physical Education be reduced by the equivalent of between five and six full-time positions, saving a total of $75,000 in salaries and related personnel benefits. While we have not tried to identify specific positions that can be eliminated, we expect that these cuts will include coaching positions as well as administrative and supporting positions.

One of the greatest strengths of Princeton's athletic program has been the variety and quality of competitive sports and the fact that a very wide cross section of the campus community has found a place in organized athletics. Economies are clearly necessary, but we do not believe that any Princeton students or members of the faculty or staff should be cut off from the opportunity to engage in some form of athletics or other healthful exercise.

Although the cuts we are recommending will mean some decline in the opportunities students have to participate in intercollegiate sports, they do not indicate any wavering from our commitment to athletic excellence and to the maintenance of a quality intercollegiate program in a wide range of sports. We continue to hope that less expensive ways can be found to achieve this basic goal.

In terms of operating expenses we think that there is very little that can be done unilaterally to achieve substantial savings. We urge the Department to continue -- and intensify -- its efforts to control the various expense budgets and to save money wherever possible, but we do not believe major savings can be achieved at this time over and above the economies already recommended in past years.

On the income side of the budget the situation is much the same. Modest increases in some ticket prices and fees seem warranted, but we do not think it would be wise to raise any of them substantially. In particular, we do not believe that it is possible to increase income significantly by raising ticket prices and usage fees for members of the University community, but we do support increases in the fees charged to non-University users.

11. Physical Plant. For 1975-76 the Committee recommends a budget of $15,663,000 for Physical Planning and Facilities, an increase of $1,852,000 over the current year's revised budget and roughly $3.0 million over the amount projected for 1975-76 in last year's Provisional Plan. The main reason for this increase is, of course, the enormous increases in the cost of fuel oil, natural gas, and electricity. The problem in this case is made especially acute by the shortage of natural gas which

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is forcing us to run our central utility plant almost exclusively on oil; at current prices oil is almost three times as expensive as natural gas.

The effects of these huge increases in energy costs on the overall University budget were discussed earlier in this report, so we will not repeat those grim statistics here. It is worth noting, however, that the high cost of energy makes conservation even more vital. It is important for all members of the University community to realize the seriousness of the situation and to cooperate in the effort to conserve energy. A reduction in total energy consumption of only one percent can save the University as much as $60,000.

Apart from the energy budget, the Committee believes that some savings are possible in the Physical Planning and Facilities area just as they are in many other areas of the University. With the help of the Vice President for Facilities and his staff, we have identified cuts of more than $500,000 in this budget. These cuts are more than offset by the increases in the cost of energy and other plant-related expenses, but they still represent real savings to the University. They also represent a degradation of service in the care of both buildings and grounds, although we have been very careful to stop short of the point at which the plant will actually begin to deteriorate. We believe that savings which jeopardize the basic preservation of the physical plant are foolhardy in that they inevitably lead to even more expensive repairs at some point in the future. The most noticeable change is likely to be that building repairs will take longer to get done and some work will not get done at all.

The Committee is not recommending any further reduction in the number of janitors and, indeed, we believe a slight increase is warranted because of a small increase in total building space. Janitorial service has declined significantly as a result of past reductions,and many people feel it has already become intolerable. At a time when we are cutting back in other areas, however, we simply do not believe that a significant improvement in janitorial service is possible. We are recommending, therefore, that the janitorial force be kept at its present level except for the very small increase required to serve this additional space.

12. Security. We realize that many members of the University community are concerned about the level of security on campus, and we recognize how difficult it is to determine how much security is "enough." The Committee shares those concerns, but at the same time we believe that some savings can be realized in the area of security without increasing the threat to personal safety. In particular, we are recommending that the guard force be reduced by a total of seven positions through attrition, a reduction of approximately 12%. We want to emphasize that these reductions will come strictly in guards assigned to building patrols where their principal responsibility is to protect property; we are not recommending any cuts in the security forces responsible for personal safety.

In coming to this recommendation, the Committee felt that a slight decline in the level of protection afforded property was tolerable. A few buildings that are now kept open will have to be locked overnight and on weekends and holidays. Obviously some people will be inconvenienced. There may be some risk of increased theft in these buildings, but we believe that if existing security procedures are followed, this will not become a significant problem. In one or two of these buildings there are real safety and fire problems, but we are advised that other arrangements, such as student patrols, can be worked out to handle these. We believe that the cuts we are recommending are possible and, given our financial situation, necessary. In addition, we support the view of the Director of Security that security in all areas of the campus would be greatly improved if people would only be more careful about protecting their belongings, about locking their doors, and simply being more security-conscious.

We are convinced, on the other hand, that despite the difficult situation we face, the University should not reduce its efforts at insuring personal safety and that the proctor force should be maintained at its current level. Indeed, we looked seriously at the possibility of increasing these efforts. Based on the recommendation of the Director of Security, we concluded that a small increase in the proctor or guard force assigned to this area would have little or no effect on personal safety. Mr. Kornblum convinced us that only a massive effort such as the doubling of the proctor force would have any real effect on personal safety, and even then the benefits are difficult to predict. After careful consideration the Committee came to the clear conclusion that we simply could not justify an expenditure of this magnitude. We have, however, recommended a modest increase in the Security Department's budget for overtime work. We believe this will give them a slightly greater degree of flexibility in the deployment of the proctor force and will enable them to respond more quickly to the changing demands for security services.

The Committee also recommends that all the various parking fees and fines be increased. As costs rise generally it seems reasonable to expect these fees to rise as well. In the case of the parking fines and towing fees, we believe that an increase might also have the useful side effect of encouraging more people to comply with University parking regulations.

13. Graduate Student Support. This year more than ever before we have been impressed by the financial plight of graduate students at Princeton. In previous reports we have talked about the decline in outside support for graduate students and the inability of the University to fill in the gap with its own funds. Very little has changed over the last year or so to improve the situation. The decline in outside fellowships has basically ended, but support in some areas is still at a distressingly low level. In

1969 about 57% of our graduate students had outside fellowships of one kind or another; in the current year only 24% are supported that way. In 1969-70 every student was guaranteed full support for four years, including tuition plus a stipend of at least $1,800; today almost 100 students receive no support at all and many others receive only tuition or half-tuition support.

Over the last few years the University has responded in several ways to the crisis in graduate student support:

- Enrollment has been reduced from 1,486 in 1969-70 to 1,358 in 1974-75.
- The number of students receiving University Fellowships has been increased from 309 in 1969-70 to 442 in the current year.
- The number of assistants in instruction, assistants in research, and assistant masters has been increased from 308 in 1969-70 to 486 in the current year.
- Increasing use has been made of various indices of financial need in the distribution of fellowships.
- Increasing amounts of loan funds have been made available for graduate students.

All of these actions have helped to distribute our limited resources more effectively and to make it possible for most graduate students to attend Princeton, but they have in no way solved all the problems.

For next year we are recommending a modest increase in the funds available for graduate student support. The fellowship budget we are recommending should allow for an increase of about 10% in the stipends for University Fellowships. These stipends have been increased only once in the last decade, a period in which the cost of living has almost doubled. Stipends for assistants in research were increased last year (and may be increased again this year), and the budget we are recommending includes a $200 increase in the stipends for assistants in instruction. In this context, a 10% increase in stipend levels for University Fellowships seems reasonable.

The Committee also endorses the recommendation of the Dean of the Graduate School that the mix of fellowships be enriched slightly by phasing out the half-tuition and tuition-plus-$1,000 grants. These fellowships were adopted on an experimental basis and have apparently been less than successful. The Dean reports that the "yield" (percentage admitted who decide to come to Princeton) is much smaller for students offered these fellowships than for any other group of students, including those who are not offered any support at all.

14. Undergraduate Student Aid. Princeton has an enviable record in the area of undergraduate financial aid, one of which we all have reason to be proud. We are one of the few schools in which the admissions decision is still separate from the financial aid decision, and we have almost always been able to guarantee to any admitted student that the financial aid he or she needed would be available. More than a third of the current freshman class receive scholarship assistance from the University, and almost half receive some form of financial aid (loans or term-time jobs as well as scholarships). We believe that this policy of guaranteeing sufficient financial aid to allow every admitted student to attend Princeton has had an enormous effect on our ability to attract quality students from a wide range of backgrounds and that this in turn has significantly enriched the educational program. We believe, therefore, that this policy should be continued.

The first step in the financial aid process for a prospective student and his or her parents is to fill out an aid application and a Parents' Confidential Statement. The Confidential Statement provides a detailed description of the financial situation of the applicant's parents, including income, assets, liabilities, number of children, etc. This document is then sent to the College Scholarship Service (CSS), a subsidiary of the Educational Testing Service. The people at CSS use this information to compute what they call "parental contribution." This is simply the amount that CSS estimates that a family in these particular circumstances can reasonably be expected to contribute to their child's college education. This information is sent to all the schools at which the student applied for financial aid.

At Princeton the Office of Undergraduate Financial Aid takes this parental contribution number as the base on which it builds a financial aid package for a student. Next an assumption is made about how much the student can be expected to contribute from his or her summer job earnings. (This assumption is based on the actual earnings of students during the previous summer.) The difference between what the student can provide in the form of parental contribution plus summer earnings and the total cost of a year at Princeton (tuition and room and board plus travel and miscellaneous expenses) is considered his or her financial need. When we say that financial aid resources are sufficient to meet the needs of all students, this is the definition of need we are using.

It is important to remember that much of this financial aid is provided in the form of loans and term-time employment rather than scholarships. Indeed, we normally expect a student to work up to ten hours a week during the term and to borrow up to $1,100 before he or she is eligible for scholarship assistance. Any student who is still in need after the loan and job expectations are calculated, however, normally gets a scholarship equal to the amount of need. In the current year these scholarships amount to more than $3.5 million distributed among just over 1,500 students, an average of about $2,300 per student.

For 1975-76 we are recommending a scholarship budget of $4,256,000, an increase of $704,000 over the current year. There are two basic reasons for an increase of this magnitude:

First, we have recommended increases of over $600 in tuition and room and board rates. We also believe that travel and other expenses will increase over the next year and we have included an allowance for that. When all of these cost increases are figured in, the financial need of any given student is obviously going to increase significantly. In all of our discussions about tuition and other charges we have assumed that the scholarship budget would be increased to meet that need.

Second, for several years financial aid officers at Princeton and many other places have argued that the CSS method of computing parental contribution was unrealistic and, in particular, that it resulted in too high an expected contribution from middle-income families. Partly in response to these criticisms and partly because of the effects of inflation on their formulas, CSS has made a number of significant adjustments. These adjustments result in a lower parental contribution in most cases. In Princeton's case the average parental contribution for scholarship students in the incoming freshman class (after making some further adjustments agreed to by the Ivy League financial aid directors) is about $300 less than it would have been under the old system. This means, of course, that the average scholarship will be $300 higher than it would have been.

The Committee endorses the recommendation of the Dean of the College and the Faculty Committee on Undergraduate Admission and Financial Aid to treat this year's CSS tables of need precisely as we have treated those of previous years, applying them only to the incoming freshman class (1979). Since the tables change every year, sometimes in the direction of requiring a larger contribution from parents and sometimes in the opposite direction, the Office of Undergraduate Financial Aid has for many years used the most recent tables only for freshmen, thereby establishing a new aid "base" for each new class.

For returning students we believe that scholarships should also be determined next year as they always have been, using each student's previous aid award as a base and making marginal adjustments for increases in costs and whatever increases or decreases in family income may have

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occurred. The Committee on Undergraduate Admission and Financial Aid did recommend, however, that some additional adjustment be made for the effects of inflation, and we agree that this is desirable. The budget we are recommending assumes that the increase in the parental contribution for returning students will be only half as much as it would have been under last year's CSS tables, thus reducing the average parental contribution by about $125.

We also recommend that self-help expectations be increased for next year. We recommend that the term-time earnings expectation be increased by 7.5%, an amount equal to the recommended increase in student wage rates. Since we are still able to guarantee every aid student a job through the Office of Undergraduate Financial Aid, we think this is a logical step. We also recommend that the loan expectation be increased by $100 to $1,200 ($1,000 for low-income students). We realize that students are now being asked to borrow a significant amount of money and we are aware of the burden this places on many students, especially those who are planning to go on to graduate school. Scholarship funds are limited, however, and we agree with the judgment of the Committee on Undergraduate Admission and Financial Aid that it is more important to provide scholarship aid for all enrolled students who need it than it is to keep the loan expectation at a fixed level. It is important to remember that students can borrow money from the University through the Federal Insured Student Loan program. For most students, the interest on these loans is paid for them all the time they are enrolled at Princeton or in a graduate or professional school (or in the Peace Corps, VISTA, or the military). Even after they have to start repaying these loans, the interest rate is only 7% and they have ten years to repay. We do not believe that it is unreasonable to expect students to borrow more under these conditions.

15. Salary Policy. The Committee recommends salary increase pools for 1975-76 which entail a total commitment of $3,673,000 in general funds for salaries and related personnel benefits. This would be an extraordinary allocation even in a normal year, but it is even more extraordinary now that we are projecting a deficit for next year of $1.7 million, especially when one considers that the salary increase pool last year was the largest in Princeton's history.

As an educational institution the University is heavily dependent on the quality and commitment of its faculty and staff. As we cut back the level of staff in many areas of the University, we are definitely asking more of those who remain. The importance of staff morale has never been more obvious. Clearly our ability to maintain a level of morale among faculty and staff, as well as our ability to attract the very best people for all jobs and at all levels, is affected by our ability to provide an adequate level of compensation. Although the University is simply not in a position to guarantee its employees immunity from inflation -- indeed a university is more susceptible to the problems of inflation than most institutions -- we do believe that we must be sensitive to the effects of inflation on our employees and their families. We are aware, of course, that a Federal income tax rebate, or a tax cut of some kind, is almost certain in the coming months. We believe that such action would do a great deal to relieve some of the financial pressures felt by members of the faculty and staff. Still, we do not believe that the rebate or tax cut will be large enough to solve the basic problems these people face. In this very difficult year we believe that special steps must be taken to provide the best possible salary pools.

It seems to us that at the present time the need for salary increases is more serious for non-faculty employees than it is for faculty, for two basic reasons: first, the labor market in which we compete for many categories of non-faculty is very different. As a result of last year's salary actions, Princeton made some progress in closing the gap between average faculty compensation here and at institutions of similar quality, and we are reasonably competitive now, especially in the senior ranks. On the other hand, despite the extraordinary increase of a year ago, we have slipped somewhat in terms of salaries for supporting staff in many job categories. Many local industries have granted pay increases over the last few years that were much larger than any we have been able to afford and, as a result, our competitive position has slipped and in many cases our ability to attract and hold good people has been affected.

Second, we have definitely lost some ground with respect to the cost of living, which has been rising at extraordinary rates. Most members of the supporting staff are paid less than faculty, and, as a result, they tend to feel these increases in the cost of living more directly.

We believe, therefore, that a larger share of the salary pool should go to the supporting staff. These are the people for whom the competition is greatest at this time and on whom inflation places the greatest burden. Moreover, within each group we believe that the people at the lower end of the salary scale should get somewhat larger increases.

For the supporting staff at the lowest end of the salary scale we recommend that the pool be distributed largely on an across-the-board basis. Although salary pools will have to vary by job category and by salary level, the overall salary allocation we are recommending should be sufficient to provide increases of as much as 10% for the lowest salary levels with higher-paid employees getting somewhat smaller increases. We hope that this increase, especially when combined with the proposed rebate on the Federal income tax, will go a long way toward helping employees and their families keep up with inflation.

For faculty and higher-paid members of the administrative staff, we recommend that the salary pools be distributed on the basis of merit with a specified minimum increase expected in the lower ranks. Given the large number of job categories covering such a wide range of jobs, the process by which the general salary allocation is divided into pools and those pools are then distributed among individual members of the faculty and staff is a very complicated one, making it impossible to make a single recommendation. The Dean of the Faculty and the Vice President for Administrative Affairs are currently working out the details of this process, which will be announced in the usual fashion. Although the Priorities Committee has not examined -- and indeed cannot examine -- the specific details of this salary policy, we recommend that the pools for both faculty and staff be weighted somewhat more heavily toward the lower-paid levels. For the highest-paid people the average increase will be in the 6-7% range, with lower-paid faculty and staff getting larger average increases.

Appendix Table A-1

PRINCETON UNIVERSITY

Operating Budget: Income
(in thousands of dollars)

	1973-74 Actual (1)	1974-75 Current Estimate (2)	1975-76 Projection (3)	Difference (3) - (2) (4)
1. Endowment	15,935	17,478	20,157	+2,679
2. Student Fees:				
a. Undergraduate Tuition	13,750	14,988	16,840	+1,852
b. Graduate Tuition	4,655	5,051	5,684	+633
c. Other	320	319	351	+32
Subtotal	18,725	20,358	22,875	+2,517
3. Gifts & Grants (non-govt.):				
a. Sponsored Projects	2,092	1,841	1,398	-443
b. Annual Giving	3,620	3,600	3,700	+100
c. Other	4,149	4,102	3,624	-478
Subtotal	9,861	9,543	8,722	-821
4. Federal & State Government				
a. Sponsored Projects	29,251	37,091	39,465	+2,374
b. Other	1,664	1,770	1,642	-128
Subtotal	30,915	38,861	41,107	+2,246
5. Auxiliary Activities:				
a. Athletics	554	600	644	+44
b. Dorm. & Food Services	7,198	8,131	9,270	+1,139
c. Faculty & Staff Housing	1,712	1,852	2,116	+264
d. Married Student Housing	511	572	626	+54
e. Commercial Properties	919	991	1,040	+49
Subtotal	10,894	12,146	13,696	+1,550
6. Service Departments	4,305	4,221	4,207	-14
7. Other	2,882	3,421	3,923	+502
GRAND TOTAL	93,517	106,028	114,687	+8,659
Memorandum: Summary of Sponsored Projects				
a. Direct Costs	24,861	30,880	32,380	+1,500
b. Indirect Cost Reimbursements	6,482	8,052	8,483	+431
Total*	31,343	38,932	40,863	+1,931

*Sum of lines 3a and 4a.

Appendix Table A-2

PRINCETON UNIVERSITY
Operating Budget: Expenditures
(in thousands of dollars)

	1973-74 Actual (1)	1974-75 Current Estimate (2)	1975-76 Projection (3)	Difference (3) - (2) (4)
1. Academic Departments:				
a. Instructional Salaries				
1. Faculty, acad. year	10,513	11,765	11,651	-114
2. Teaching asst. stipends	771	799	837	+38
3. Teaching asst. tuitions	720	803	889	+86
b. Other salaries, expenses and benefits	17,974	19,985	20,091	+106
c. Graduate Fellowships				
1. Univ. Fellowships*	2,018	2,138	2,523	+385
2. Other Fellowships	1,944	1,348	1,295	-53
Subtotal	33,940	36,838	37,286	+448
2. Special Academic Programs	17,445	23,059	24,878	+1,819
3. Undergraduate Scholarships	3,444	3,552	4,256	+704
4. Other Student Aid and Miscellaneous Fellowships	456	456	456	---
5. Central University Services:				
a. Library	4,522	4,915	5,074	+159
b. Computer Center	2,486	2,270	2,246	-24
c. Security	1,185	1,241	1,188	-53
d. Other	809	922	977	+55
Subtotal	9,002	9,348	9,485	+137
6. Administration:				
a. Academic Administration	3,806	4,169	4,099	-70
b. General Administration	6,136	6,850	6,844	-6
Subtotal	9,942	11,019	10,943	-76
7. Physical Planning & Facilities	10,716	13,811	15,663	+1,852
8. Athletics	1,800	1,784	1,715	-69
9. Dormitory & Food Services	4,833	5,145	5,180	+35
10. Transfers to Reserves	2,443	2,484	2,614	+130
11. Salary Increases (including benefits)	---	---	3,673	+3,673
12. Allowance for Contingencies	---	50	200	+150
GRAND TOTAL	94,021	107,546	116,349	+8,803
13. Estimated Income	93,517	106,028	114,687	
14. Surplus or (deficit)	(504)	(1,518)	(1,662)	

*Endowment and General Funds

Notes to Summary Tables

GENERAL NOTE: Some of the lines of these summary tables have been discussed in detail in the report proper, and no attempt will be made here to summarize information which appears elsewhere.

Income

1. Endowment. The increase here is attributable to a number of factors. First, we are projecting a slight increase in the investment income per unit. Second, we are planning to use significantly more of the available income (including that of prior years) supporting student aid. (Endowment income does not show up in the operating budget at all unless it is actually spent.) Third, certain accounting practices have been revised to provide for spending investment income from unrestricted gifts, bequests, and other funds.

2. Other Student Fees. The increase here is attributable to increasing the undergraduate application fee from $15 to $20.

3. Gifts and Grants. We are estimating an increase of $100,000 in Annual Giving on the cash basis. Non-government sponsored projects are expected to decline, but since a large portion of sponsored project funds are devoted to the direct costs of those projects and are therefore included on both the income and expenditure sides of the budget, there is little net impact on the deficit. Other gifts and grants are also expected to decline, representing the expiration of several large foundation term gifts.

4. Federal and State Government. The sponsored project increase is mainly for the Plasma Physics Laboratory. The drop in other government income is attributable both to reduced support for graduate students and to the utilization, in the current fiscal year, of funds received late last year for programs of the State of New Jersey supporting undergraduate financial aid.

5. Auxiliary Activities. Most of these activities were discussed in detail earlier. Rental income from commercial properties is higher because of proposed revisions in our leasing policies.

6. Service Departments. Includes income from computer operations, machine shops, printing and duplicating services. Much of this income is from other University departments rather than outside sources.

7. Other Income. This line consists mainly of income from the investment of current funds. The increase is attributable to the revised accounting practices discussed under point 1 above.

Expenditures

1. Academic Departments. Instructional salaries and graduate fellowships were discussed earlier. The increase in other salaries, expenses, and benefits is due to a higher estimated level of sponsored research, and higher costs for general operating expenses.

2. Special Academic Programs. Increase is primarily for the Plasma Physics Laboratory.

4. Other Student Aid and Miscellaneous Fellowships. This line includes miscellaneous items (prizes, post-doctoral fellowships and the like). None of these items involve general funds.

5. Central University Services. The "other" category here includes the machine shops and stockrooms.

10. Transfers to Reserves. This is a "formula" calculation based on a moving average of expenditures from these funds in prior years.

APPENDIX B

Princeton University: DEPARTMENT -- Office of the Provost

INTER-OFFICE CORRESPONDENCE

To Department Chairmen, Heads of Offices, Directors of Programs

Date September 23, 1974

Subject Review of the University's Financial Situation and Guidelines for 1975-76 Budget Requests

From Sheldon Hackney

Budget season is upon us once again, and I believe the situation is more serious now than at any time since 1970-71. By now chairmen of academic departments should have received the teaching budget forms for 1975-76 (FY 76); all of you will in addition receive shortly, about the first of October, the budget Form 10 which deals with all other operating budget requests.

While struggling with the forms, I hope you will keep in mind the University's current financial situation and how it affects this budget we are just beginning to assemble. As most of you know, the year just ended left Princeton with an operating deficit of approximately $500,000. As President Bowen told the faculty on September 9, a half million dollars is not an insignificant sum, but, if it were simply a one-year aberration, one would not need to be unduly alarmed. What is very worrisome, however, is that inflation appears also to have undermined the budget for the current year and all our projections for future years.

The most obvious example of this is energy. Although the University's energy needs depend heavily on such uncontrollable factors as the weather (and particularly the severity of the winter), price increases in oil, natural gas, and electricity have been unprecedented and we now believe that our total energy bill could well exceed the budget for the year just beginning by about a million dollars. Given the large number of uncertainties in other areas of the budget (as well as the uncertainties in the energy budget itself), this number should not be interpreted as a projected deficit for the University, but it is clear that we are now facing an adverse change in our financial situation that may persist for several years. In order to adjust to this change in the basic environment in which we operate, we must now look for new ways to reduce expenditures and raise income.

The Priorities Committee has recommended a number of steps that can be taken immediately to cut costs. First, we have asked the Office of Physical Planning and Facilities to look for new ways to conserve energy, particularly electricity. I urge all of you to help in whatever ways you can in this program of conservation. Second, the Committee has recommended that an ad hoc committee consisting of the Vice President for Administrative Affairs, the Treasurer, and the Dean of the Faculty be established to review all existing general funds vacancies on the administrative and other supporting staffs. We hope that a significant number of these positions can be eliminated, or at least left unfilled for the time being. Finally, we are asking the heads of departments, programs, and offices to review carefully their own operating expenses to see what reductions may be possible without endangering essential programs of instruction and research. As a part of this review, I ask that you examine personally the detailed breakdown of your actual expenses in 1973-74, including even such items as telephone, Xerox and mimeograph, travel, etc. We hope that these "self-analyses" will enable you to spot opportunities to do a better job of controlling operating expenses. The results of this review should be reported in the memorandum accompanying the completed Form 10.

In addition to these efforts to reduce expenditures the Priorities Committee has begun considering other steps that might bring the budget back into balance and keep it balanced. In the context of these discussions the following budget guidelines have been recommended by the Committee and approved by President Bowen. It is obviously in no one's interest to have departments submit proposals that we all know in advance cannot be funded. Therefore, I ask that you pay close attention to these guidelines when you are filling out your requests. Those of us who have had the job of reviewing budget requests are extremely grateful for your cooperation in this regard, and I know we can expect the same this year.

1) We ask that you propose no net additions in academic or other staff. Given the seriousness of our current financial situation we expect virtually no growth in the overall size of the faculty or staff next year. Thus increases in any one area will have to be accompanied by contractions elsewhere. If you do feel that a particular position is absolutely essential, you should therefore provide compelling documentation of the need for that position.

2) You should also examine all present and expected vacancies to determine whether they can remain unfilled without jeopardizing essential functions. As I explained earlier, we have already begun our own review of non-faculty vacancies, but this must be a continuing effort on your part as well as ours.

3) Given the current rate of inflation, it would clearly be unrealistic for us to expect no increases in operating expenses next year. However, we do ask that you request no funds for operating expenses which are not absolutely necessary. In making these requests, please incorporate the results of your analysis of last year's expenses referred to above. Again let me remind you of the need for economy and urge you to do whatever you can to offset the effects of inflation by increasing the efficiency of your operations or by

curtailing those operations wherever possible. I realize, of course, that you have already done a considerable amount of this kind of cost-cutting in recent years and that these actions make it all the more difficult to find new savings, but they must be found.

4) We ask that you try, wherever feasible, to make fuller use of restricted funds, so that general funds can be conserved for those activities which cannot be supported in any other way. You should not plan to shift expenses now covered by research contracts or restricted departmental funds to the general funds budget without proposing offsetting economies.

5) Departments for which multi-year plans have been developed should review those plans in light of the actual 1973-74 results, and in particular see if additional economies can be achieved in light of the University's changed financial circumstances.

Of course, these guidelines are not meant to apply with equal force to proposals which are to be financed from restricted funds on a continuing basis. Neither are they intended to constrain activities which can be fully funded from new "outside" sources and which portend no future drain on general funds.

Clearly, the task we are asking you to perform is a difficult one. I can assure you, however, that it is a necessary one if Princeton is to maintain its financial strength and stability, which in turn is necessary if the strength and stability of its programs of teaching and scholarship are to be preserved. The job before the Priorities Committee -- producing a balanced budget -- is also a difficult one and we need your help.

Throughout the trying days ahead, I think we should also keep in mind that Princeton is by no means alone in facing this period of financial stringency. Other colleges and universities, and in fact the entire economy, are passing through an exceedingly difficult period. We cannot expect to be immune from inflationary forces. But neither can we avoid the need to respond to them in the best long run interests of the University.

Sheldon Hackney

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APPENDIX C

Princeton University: **DEPARTMENT** -- Office of the Provost

TO Department Chairpersons and Heads of Offices

DATE August 30, 1974

SUBJECT General Funds Computing Budget

ROM Sheldon Hackney

As many of you know, the loss of income from sponsored research projects has caused the financial position of the Computer Center to deteriorate markedly over the last few years. The amount of University general funds being used to support the Computer Center has risen from about $900,000 in 1971-72 to an estimated $1.4 million in 1973-74. The Priorities Committee has urged me, the Director of the Computer Center, the Faculty Committee on the Computer Center, and a special subcommittee of the Priorities Committee to explore ways of reversing -- or at least halting -- this alarming trend. As a result of our discussions, it seems prudent to make certain adjustments in departmental computing budgets for 1974-75. In particular, general funds budgets for computer time (the so-called 1050 money) have been adjusted in such a way as to provide departments and offices with approximately 90% of the computing power actually used in 1973-74.

The reason it is necessary to reduce general funds computer usage is that the use of the 360/91 has increased dramatically and changed character over the last few years, so that the computer has reached the point of saturation. In earlier years, there was considerable excess capacity on the machine so that general funds computer use could increase without any significant impact on "hard dollar" users (sponsored research contracts and the like). As a result, it was possible in those days to think of "1050 money" as being "funny money" -- spending a little more or a little less of it did not really have a material impact on the University's overall financial situation since the cost of providing a few more minutes of computer time was almost zero. Today, by contrast, use of the 360/91 has increased to the point where we are, in effect, forced to turn away some hard dollar users. Under these circumstances, each general funds computer dollar is just as "expensive" to the University as a dollar spent for salaries or other operating expenses. Clearly we can no longer regard these funds as "funny money."

The objective of the action described in this memorandum is to reduce the amount of computing (both educational and administrative) paid for with general funds by roughly 10%. Because of the rate increases averaging 10% caused by rising costs at the Computer Center, this means that the actual dollars budgeted for computer time will be about the same as last year. The revised 1974-75 budgets were calculated in the following way: first, the actual expenditures of your department in 1973-74 were adjusted to give

INTER-OFFICE CORRESPONDENCE

credit for the use of DELAY priority. (For an explanation of DELAY priority, see the attached memorandum from Mr. J. F. Poage.) These figures were then adjusted again to take account of the amount of DELAY time budgeted for this year. Finally, the dollar budget for FY 75 was set equal to this adjusted FY 74 number or the amount originally approved for FY 75, whichever was lower. These calculations exclude funds used for non-sponsored faculty research (account #1051); these funds are being allocated separately by Mr. Richard A. Rossi, Director of the Office of Research and Project Administration, under policies adopted by the University Research Board.

For your convenience, there are three additional documents attached to this memorandum. The first is a sheet showing your requested and approved budgets for FY 75 (1974-75) as well as your actual expenditures in FY 74. The allocations for non-sponsored faculty research shown on this sheet may be out of date, but these accounts are not affected by the policy changes described in this memo and needn't concern us here. All requests (for 1051 funds) approved by Mr. Rossi will be reflected in future budget summaries. The second document is an explanation of the Computer Center rates which took effect on July 1, 1974 and the third is a revised set of rates that will go into effect on September 1, 1974.

I realize that these actions will necessitate a certain amount of retrenching on the part of almost everyone who uses the computer, but we trust that the necessary adjustments will be made in such a way as to minimize the effect on the educational program. Indeed, this action is designed to help us preserve our limited computing resources for those activities which are deemed to be of the very highest priority -- including, I might add, new uses of the computer in the educational program.

While we are determined to stick as closely as possible to these budgets, we know that any across-the-borad reduction runs the risk of having an inequitable impact in some cases. In such special circumstances, I would urge you to discuss the situation with Mr. Richard Spies in my office. In general, however, all requests for additional funds will have to be scrutinized with a very critical eye, and can be approved only in exceptional cases. Our best chance for success with this new program will depend upon each department monitoring closely the use of these funds over the course of the next year.

If you have any questions about this policy, please feel free to contact me or Dick Spies. Any requests for additional funds should be directed to Mr. Spies. Questions about how your budget was computed can be answered by Mr. J.R. Piggott at the Computer Center (ext. 2-6005). Mr. Piggott can also answer any questions you may have on the use of DELAY priority.

Sheldon Hackney

SH/et
Encs.
cc: Computer Center Committee
Computer Subcommittee of the Priorities Committee

APPENDIX D

Computer Center Committee Report
to the
Priorities Subcommittee on Computing

November 1974

Regular Members

Bruce Arden, Chairman - Electrical Engineering
Edward A. Frieman - PPL
Howard A. Howell - ASDP
Dwight M. Jaffee - Economics
Anthony J. Maruca - Administrative Affairs
Donald R. McNeil - Statistics
Theodore K. Rabb - History
Eric E. Schmidt '76
Arthur J. S. Smith - Physics

Ex-Officio Members

Sheldon Judson - University Research Board
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Computer Center Committee Report
to the
Priorities Subcommittee on Computing

Introduction

There are several reasons for considering alternatives to the present computing facilities at this time. The pattern of computer use has changed from one of several dominant research users to a greater spectrum of use, including increased educational use, increased administrative dependency on the facilities and, recently, a rapidly growing demand for interactive computing. There are three specific illustrations of these trends which account for the urgency of this consideration of change:

1. The remaining large research supporter of the Computer Center, PPL, is under continual pressure to do its bulk computing at one of the large AEC computing centers. Although the Laboratory would prefer to use the Computing Center, provided the services offered are adequate, the possibility exists that the Center income from this source could significantly diminish in the next few years.

2. The EIS facility will not be operated by the Computer Center after June 30, 1975. Recent evaluations of the current EIS arrangement have shown that it is not a beneficial one for Princeton. The EIS system demand on the 360/91 has contributed markedly to the overloads experienced. Although the contract with EIS provides Princeton with some time-sharing in partial payment for its operation of the EIS system, it would be more cost beneficial to independently buy this service from EIS or some other supplier. In any event, the demise of EIS raises the issue of how to provide for the interactive computing that was available under the contract and has become an important part of certain educaitonal and research operations.

3. Administrative data processing has reached a near crisis state in their attempts to maintain central data bases by batch updates originating from diverse offices. It is a problem that is often solved by having the several offices use interactive computing (i.e., terminals) to "instantly" edit and modify the portions of the file for which they are responsible. Increasingly, these problems have been handled by

considerable "re-running," a remedy which is costly and crisis-inducing.

The present budget situation aggravates these problems and a subcommittee of the Priorities Committee has been established to make recommendations to its parent committee. This report is submitted to the subcommittee for its consideration.

Models

The Computer Center Committee considered a number of alternative computing arrangements, or models. These were formulated by the Computing Center staff and were essentially five year projections of expenses and income. Two additional possibilities were also discussed. The models for which the projections were made are:

1. Maintain the 360/91 batch computing facility and buy interactive computing outside of the University.
2. Similar to (1) but add internal time-sharing facilities when the next generation of computers becomes available.
3. Rent an IBM 370/145 to handle all interactive computing. It would be loosely coupled to the 360/91 which would provide batch services.
4. Rent a small IBM 370/115 for interactive editing of administrative files and small data processing tasks. Buy a PDP-10 for student and research interactive work. Continue to use the 360/91 for batch computing.
5. Sell the 360/91 and rent a two-processor IBM 370/158 to handle all computing.
6. Rent an IBM 370/168 to handle all interactive computing and drive the 360/91 which would provide batch computing services.

As an aid in considering these models, it is useful to regard the University's options presented in an ordered list:

1. Decentralized, external computing - buy all computing externally with different vendors for different types of computing.

2. Centralized, internal batch computing, externally supplied interactive computing (Models 1,2).

3. Centralized, internal computing - all types of computing offered on the same system (Models 3,5,6).

4. Internal, partially decentralized computing - maintain separate facilities for different types of computing (Model 4).

5. Internal, decentralized computing - permit small facilities, as needed, in separate offices and departments.

These options were discussed and, for the reasons in the following section, more detailed consideration was limited to models 1, 3, and 4.

Reducing the Options

For a variety of reasons, the outside purchase of all computing does not seem feasible. Given the amount of computing generated at Princeton, it should be possible to produce it more efficiently than a taxable, profit making computing vendor can. Also, an organization and physical plant exist for this purpose. There is still an economy of scale in computing machines, it is no longer so apparent from simple measures like processor speed but, if one considers the input/output, the files, the channel capacities, and communications equipment necessary for substantial computing problems, the cost per operation drops with increasing system size. Another argument for an in-house facility is the difficulty in doing administrative work through commercial services. It is not difficult to do small interactive or large non-repetitive, highly computational tasks on external facilities, but periodic report generation based on large, complex data bases is more difficult to handle externally. For these reasons, option (1) was not considered further.

The other end of the option spectrum, complete internal decentralization, was also rejected. In an era of frustration with present facilities and improving performance of minicomputers, it is potentially attractive to "go it alone" with a departmental or office facility. There are several fairly obvious, objections which relate to the disadvantages of decentralization. One is essentially the converse of the economy of scale argument. Each of the several installations is limited in the size of the problems that can be handled and there is no way to use them in a concerted effort. Another objection is the duplication of staff, programming and maintenance effort. Also, the argument that such systems could be funded and maintained from external funds is difficult to carry out in practice; offices and departments have differing abilities to obtain such funds.

Perhaps it should also be mentioned that the difficulty of coordinating or controlling separate facilities (i.e., introducing some degree of centralization) can also be viewed as an asset. It effectively prevents the reassignment of the facilities to other purposes. With some justification, it is argued that educational and non-sponsored research computing are very vulnerable to budget cuts since the benefits of such activities are less quantifiable than the benefits of administrative and sponsored research computing. It is an argument similar to those used in opposing a national, centralized database: the difficulty in coordinating the separate installations produces the desired independence. It seems, however, that this should not be a strong argument in the University environment where many (if not most) of the budgetary decisions must take into account the (unmeasurable) quality of education.

In these deliberations the question naturally arises whether the University should now sell its 360/91. The machine is in the sixth year of an eight year payoff period and, from its original value of 2.8 million, is now worth $600,000 to $900,000 on the computer market. It is generally recognized that the 360/91 is not well adapted to the current computing load at Princeton. It is still, by today's standards, a very fast machine, but it does not have sufficient memory or channel capacity to match that processing speed for problems other than highly computational problems (i.e., "number crunchers" of the sort that arise in simulation and equation solution such as that done by GFDL and PPL). The 360/91 is unsuitable for time-sharing. Interactive computing means that a large number of programs are simultaneously handled. The combined storage demand of these partially executed programs is handled in modern machines by additional circuitry which effectively extends the main storage. This is called a "virtual memory" capability and it is not present (nor installable) in the 360/91.

In the usual concept of amortization, whenever the combined sinking fund value and the market value of the machine are sufficient to buy a machine of greater capability, this action should be taken. If the payoff of the 360/91 were established in this fashion it is clear that consideration of a new acquisition should now be made. However, the realities of the present financial situation pose a more demanding question; would the market value of the 360/91 buy more computing power than the machine now provides? The answer is negative. Although computing "horsepower" per unit cost continues to rise, it has not risen that much.

One is led to conclude that the 360/91 should be retained. However, at the end of another five years, it is anticipated that maintenance costs and inability to compete with newer machines for research computing will force its disposition.

These observations raise the question whether it might be possible to sell the 360/91 and raise the additional funds required for a replacement system by selling computing time outside of the University. In spite of the obvious financial benefits, the risks in such an operation would be extremely large and, inevitably, the University community would be in a second priority status. Even if this type of service bureau operation did not raise tax status questions, the current estimate of demand for "block-time" computing is very low. Any other type of service would require a substantial number of service personnel.

For the reasons discussed above, the extreme options were eliminated. The retention of the 360/91 and the rejection of a large "service bureau" effort leave models 1, 3, and 4 for further consideration. More detail on these are included in later sections.

Bases for Comparison

A computer system is a collection of devices and submitted programs that make markedly different demands on these devices. A somewhat oversimplified statement of this fact is that the user population can be partitioned into "constituencies" who make similar demands. For example, students make short runs which use little input/output capability; researchers are concerned with the development of large programs and the production running of large programs which have a relatively small input/output component; administrators use little processing time but make large demands on printers and direct access input/output devices. These categories are approximate and dependent to a large extent on what resources are available. Increasingly, members of each group will operate in the mode ascribed to another group. Researchers clearly illustrate this trend now since the have a need to regularly move from interactive program development to batch computing to file maintenance activity.

Clearly, it would be desirable to have a central system which accommodated all of these groups efficiently, and which uniformly loaded the devices so that one type of computing was not, in effect, subsidizing another. Also, on such a shared facility, each individual's work should proceed as if in isolation - that is, with no cost or interference from other executing programs. In reality, this ideal state is not attainable. A centralized system is like a statistical regression - it may handle none of its tasks perfectly, but all of them reasonably well. Special purpose systems, tailored to a particular type of program, can invariable handle that category more efficiently than the general system but, of course, multiple, special purpose systems (i.e., decentralized) inhibit the user from switching to another mode of operation and also prevent the entire system from being used, on occasion, on a single problem.

This issue of centralization versus decentralization is a venerable one which includes a number of qualitative factors that must be considered before a decision can be reached. In preparation for a comparison of models 3 and 4, some of these qualitative factors favoring each organization are listed below. A later evaluation of these with respect to the three constituencies will be made.

Centralization

Single locus of accounting and control

Easy passage between modes of operation (e.g. interactive and batch)

Single operating and systems support staff

Occasional dedication to different constituencies (load leveling)

Common programming system and databases (e.g. Unversity wide)

Decentralization

Greater efficiency

Good security (i.e., physically separate installations)

Constituencies can change independently.

In the following sections, more detailed descriptions will be given for the selected models of centralized (Model 3) and decentralized (Model 4) computing facilities. The proposed hardware configuration and types of software to be supported will be described to give the reader a feeling for the services to be offered. Expected performance of the proposed systems has been estimated through discussions with installations having similar machine configurations. Using the financial data for the centralized and decentralized models, price/performance numbers have been computed and compared to the cost of purchasing similar services outside of the University.

Centralized Computing Facilities

Under consideration for a centralized time-sharing and batch computing facility is the addition of an IBM 370/145 to the existing IBM 360/91 computer. Although primarily intended to provide interactive service, the 370/145 would be connected to the 360/91 to achieve:

1. data set sharing between the machines
2. submission of batch jobs from the 370/145 to the 360/91
3. use of the 370/145 for some batch work during periods of low time-sharing activity
4. utilization of card readers, card punches and printers on the 360/91.

Plans call for the 370/145 to run the IBM Virtual Machine Facility/370 (VM/370). VM/370 is a system that manages the 370/145 so that multiple computing systems appear to exist within it. Each such computing system is said to run in a virtual machine.

VM370 consists of two major components.

1. A Control Program (CP), which controls the real computer and allows multiple computing systems to run under its control.

2. A Conversational Monitor System (CMS), which runs in a virtual machine under control of the control program and provides the user a general purpose conversational facility suitable for program development and problem solving.

Two kinds of interactive systems run under VM/370: multi-access and single user. Multiple-access systems like APL/DOS-360 run in one virtual machine and directly service many interactive terminals. Systems that can be run interactively by a single user include CMS and any other operating system that can be run on a virtual machine. Thus, all teleprocessing software available under OS, VS-1 and VS-2 (such as the teleprocessing option of IMS-2) can be run under VM/370.

Available for execution under CMS are:

VM/370 Assembler

SCRIPT/370 (text processing program)

OS Code & Go FORTRAN

OS FORTRAN IV (G1)

OS FORTRAN IV (H) Extended

FORTRAN Interactive Debug

OS PL/I Optimizing Compiler

OS PL/I Checkout Compiler

VS BASIC

APL/CMS

and others.

Symbolic debugging capabilities are available using the Code and Go FORTRAN or FORTRAN IV (G1) in the FORTRAN Interactive Debug program product.

To facilitate the use of these programming language processors, the CMS command language provides each user with a wide range of capabilities at his remote terminal, such as:

1. Creating source programs, data, and text files directly on disk.

2. Adding, deleting, modifying, rearranging, extracting, or merging files and/or portions of files.

3. Compiling, testing, and debugging some types of OS problem programs under CMS.

4. Creating complete job streams to be passed to batch operating systems such as the 360/91 for compilation and/or execution. The resultant output can be printed on a high-speed printer or directed back to CMS for analysis and correction by the user.

Performance of a time-sharing computer is usually quoted as the number of simultaneous users it can support while maintaining a "satisfactory" response time. Determining performance by asking installations with similar hardware is risky. Performance depends critically upon the number of virtual machines executing, the work being done by each virtual machine, the specific hardware configuration, and the meaning of "satisfactory" response. IBM has supplied data suggesting that a 370/145 configured as we have planned will support 40 simultaneous CMS users with a three second response to minor commands. Based on our experience with APL on the EIS 370/158 and knowledge of IBM's techniques for judging performance, we estimate that twenty to twenty-four simultaneous users could be supported in the Princeton environment.

Performance figures from other installations suggest that more than 50 simultaneous users can be supported when the McGill University MUSIC system is run. The University of Waterloo reports that 21 simultaneous users (their limit) always received "excellent" response. The University of Maine running a CMS environment claims "degraded" service with 30 simultaneous users and an administrative batch computing load.

The incremental cost of providing a 370/145 is estimated at $360,000 per year. Assuming a maximum of 24 simultaneous users to be served and making assumptions regarding the work habits of users, a load of 42,000 to 64,000 connect hours per year is estimated. Dividing the incremental cost by these estimates puts the time-sharing costs between $5.60 and $8.60 per connect hour.

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It's difficult to predict what the actual time-sharing load will be with a 370/145 or what it would be if Princeton had unlimited access to time-sharing. Since time-sharing has been introduced into a mere handful of courses to date, a resource capable of handling 24 simultaneous users appears reasonable for the two years before upgrades are made.

Decentralized Computing Facilities

Under a decentralized facility, batch computing would continue to be provided by the 360/91 located at the Computer Center. Time-sharing services would be provided through the addition of two machines, one located in the Engineering Quadrangle and the second in New South. A PDP-10 (DECSYSTEM-10) at the E-Quad would replace the IBM 360/20 remote job entry station and provide both time-sharing and remote job entry services for students and faculty. Similarly, at New South, an IBM 370/115 would replace the IBM 360/22 to provide remote job entry services and time-sharing for the administration.

Software supported by DEC (Digital Equipment Corporation) for execution on PDP-10 equipment are:

FORTRAN IV

BASIC

COBOL

ALGOL

APL

and a number of text editors and debugging systems.

PL/I is not available although DEC is currently considering an implementation.

A number of time-sharing monitors are available from DEC to provide users with capabilities for program creation, program editing, file handling, compiling, testing and debugging of programs, and remote job entry to the batch facilities.

Except for its use as a remote job entry station to the 360/91, little interaction is expected between the PDP-10 and the 360/91. Because of incompatibilities between DEC language processors and IBM language processors It is not expected that programs will be written, debugged and tested on the PDP-10 for later execution on the 360/91. The PDP-10 will provide essentially a standalone time-sharing service.

Concern for data security and the administration's large investment in applications using PL/I have led to the proposal that administrative teleprocessing needs be served by a separate system located in New South. Proposed is an IBM 370/115 to serve both time-sharing and remote job entry needs. Since the IMS-2 file management system cannot run on either a 370/115 or 370/125, use of the New South equipment would be limited to:

1. Remote job entry to the 360/91.

2. Inquiry and update against copies of the 360/91 central files.

3. Data entry and editing to produce transaction files that would be run against the 360/91 central files after business hours.

4. Running of very small batch jobs.

5. Running interactive programs against files permanently stored on the New South machine.

Equipment capable of running IMS-2 at New South would cost approximately twice as much as either the 370/115 or 370/125.

Estimating performance of the PDP-10 and the 370/115 is subject to the same uncertainties encountered in evaluating the 370/145. "Satisfactory" performance for PDP-10's ranges from 20 simultaneous users to 100. With the ability to support large numbers of users in a student environment, price performance for the PDP-10 becomes a question of its use rather than its capacity. Perhaps the most meaningful input in evaluating the PDP-10 came from the California Institute of Technology. CAL TECH recently installed a PDP-10 system for student use to supplement its existing IBM 370/158 facility. The CAL TECH installation is of particular interest since their student body has roughly the composition of our students in Engineering and the natural sciences. Furthermore, prior to installation of the PDP-10 near adequate computing facilities existed. Although equipped for up to 80 terminals, CAL TECH load on the PDP-10 typically runs about 30 simultaneous users from 10 a.m. to 10 p.m. With 40 simultaneous users, service is degraded.

Price/performance estimates for a PDP-10 at the E-Quad were made assuming a maximum of 36 simultaneous users submitting a load between 63,000 and 96,000 connect hours per year. These estimates are 50% higher than those used in computing price/performance for the 370/145. Furthermore, they represent student work whereas work on the 370/145 was a mixture of academic, research and administrative load. The incremental cost of providing PDP-10 service at the E-Quad is estimated to be $402.0k per year. Using the assumptions that load will range between 63,000 and 96,000 connect hours per year, time-sharing costs range from $4.20 to $6.40 per connect hour.

Administrative use of the 370/115 for time-sharing will evolve slowly because of the large amount of software to be written. It is expected to ultimately reach a maximum of six simultaneous users generating demand for approximately 7000 connect hours per year. The incremental cost of replacing the 360/22 with a 370/115 is estimated at $51.0k which includes equipment and additions to staff. Cost for time-sharing becomes $7.30/connect hour.

Purchase of Time-sharing Outside of the University

As pointed out in Section IV, it is not sufficient to compare services on price alone. Quality, quantity and range of services vary widely. Furthermore, prices from outside vendors are frequently negotiable, particularly if a substantial volume of service is involved. The obvious advantage of purchasing services outside is that only those services required are actually purchased. Except for advantages realized through bulk buying, the cost per connect hour is the same whether volume is large or small.

Table I summarizes our estimates of costs for providing time-sharing from within and outside of the University. Cited are the source, price and assumptions made regarding quantity and range of services.

Cost per connect hour for Princeton installed systems are based upon the incremental cost of supplying the service and upon estimated patterns of use. If the volume of use is less than predicted, the effective cost per connect hour will be greater. If more than the predicted number of users are serviced, costs will drop.

Data for EIS charges is taken from the August 1974 billing. Data from July, 1974 showed a connect charge of $22.60/hour, a figure heavily skewed by one very large user.

Charges for use of Rutgers and the two commercial services are based on published rate schedules and estimates of communications costs rather than "live" data.

Evaluation of Models 1, 3 and 4

Choice of Model 1 over either Model 3 or Model 4 hinges on the question of whether the desired time-sharing services can be acquired outside of the University at less cost than providing them internally. Providing time-sharing internally requires a large fixed expenditure regardless of volume. Only when the volume reaches a critical level will it be more economical to provide in-house facilities. This year we expect to use about 10,000 connect hours of service from EIS; service that has little appeal to researchers and administrators. From Table I it appears that the cheapest overall external service is provided by Rutgers on their 370/158. Assuming that the Rutgers 370/158 could meet our needs, a volume of 32,700 connect hours would be required to justify the cost of the 370/145 of Model 3. A volume of 36,600 connect hours would be required to justify the PDP-10 of Model 4. Since in reality the Rutgers 370/158 cannot meet our needs, somewhat higher priced services would be required in some areas putting the cost effective crossover around 30,000 connect hours per year.

At the moment there are about 20 terminals lurking in various corners of the University. Increasing this number to 36, particularly if some are clustered in one or two common rooms, will provide a sufficient number of devices to use 30,000 hours. If either Model 3 or Model 4 is implemented, we expect that the number of terminals would soon exceed 36. For example, the administration should eventually have about 12 terminals. Researchers, provided service meets their expectations, should have another 12 or so but they are not likely to be clustered. Another 6 terminals should meet our perceived student needs. Our expectation is that regardless of the plan chosen, the number of terminals will grow rapidly to about 36 with more being added as administrative applications are developed.*

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* This paragraph prompted a great deal of discussion at the Computer Center Committee meeting on November 5, 1974. An Addendum at the end of this report summarizes that discussion.

Our conclusion is that internal time-sharing would be at the crossover of cost effectiveness if 12 administrative terminals alone were added to the existing ones. Additional research and student terminals would make it more so. Clearly, by fiscal constraints, the quantity of externally purchased time-sharing could be kept below 30,000 hours. Pressures for time-sharing will continue to mount, however, to the point that 30,000 hours will be used either by purchase of service with research funds or by the purchase of minicomputers. It is therefore our recommendation that time-sharing be supplied internally as soon as possible. Our needs place us at or above the point of cost effectiveness. Further delay in providing internal time-sharing will only increase the trauma imposed on users of switching at a later time from an outside supplier to an internal service.

It should be emphasized at this point that the cost of terminals may be a "hidden" cost. The financial plans for Models 3 and 4 include the cost of administrative terminals. They do not, however, provide for the expansion of student or research terminal facilities. To date, most terminals have been acquired by funds from sources other than the University General Funds. In the future this may not be true. Terminals range in purchase price between $2000 and $6000. Depending upon policies established by the Priorities Committee it may be necessary to augment the financial models to provide for the acquisition of some terminals as capital equipment.

Qualitative Comparison of the Models

If one reexamines the pros and cons of centralization (which were listed earlier) from the point of view of the three constituencies, it is not hard to predict the preferences. Groups which operate in several modes will benefit from the commonality of the centralized system while those who operate in a single mode will benefit from the better performance and independence of a specialized system. Both the administrative data processors and researchers need interactive computing and the ability to access the same files in both batch and time-sharing modes. Students involved in problem solving for regular course work are more homogeneous in their computing demands and could operate primarily in an interactive mode. Even this categorization is imperfect because advanced students on independent projects often have the varied needs of researchers.

One possible exception to this preference structure is related to file security. On a shared, interactive system, it is important (and perhaps most important for administrative use) that files be accessible only to authorized users. The physical separation of distinct systems provides the best security but even then, if access is possible from terminals, a breach of security is possible. The security of the centralized system being considered is very good because the separate virtual machine structure of the system provides a kind of isolation that closely simulates the separation obtained from distinct physical machines. Although it is not perfect, it is almost as secure as the files in the current batch system.

If the interactive capacity of the centralized system were as great as the standalone system, the decision would be clear since the costs are roughly equal. But, from the estimates it appears that the separate system would have at least a 50% greater terminal handling capacity (36 terminals versus 24). The question becomes: Are the commonality benefits of the centralized system sufficiently valuable to offset the additional terminal capacity of the decentralized version?

One last qualitative issue is the matter of growth. It is hard to make solid comparisons. In the multi-center approach, each installation has growth possibilities. A PDP-10 can add disks and storage which translates to more terminals supported. The 370/115 can grow to a 125, 135, etc. In the centralized case, the 370/145 could become a 158 or 168 with no change in operation. In the balance, the centralized system looks slightly better because it would provide a smoother transition when the 360/91 is ultimately phased out.

Recommendation

This somewhat discursive report has attempted to summarize the discussions of the Computer Center Committee in their consideration of future alternatives. The feasible options were reduced to three and then, after a comparison of the cost of internal and external interactive computing, to two. The decision between the two is difficult. Since the centralized model is preferable to two of the three major constituencies, it is recommended by the Committee.

Within the accuracy of the assumptions, the cost and income projections for the two prime models are comparable and show a marked increase in general fund commitment to computing over the five year period. It would be desirable, of course, to minimize this growth. The departure of EIS and the addition of a better interactive capability should reduce the load on the 360/91. Ideally, this time could be sold to offset the cost of the additional equipment but it is difficult to predict. Certainly, the current steps to reduce the in-house load on the 360/91 should be maintained in order to preserve a marketable block of time. One slight additional virtue of the centralized scheme is that, if "real" income becomes unacceptably low, the retrenchment from a rented 370/145 is easier than from a lease-purchase PDP-10.

ADDENDUM

The Computer Center Committee, at its meeting on November 5, 1974, discussed a draft version of this report and generally agreed on the recommendation given above, albeit reluctantly. The reluctance arises from the feeling that none of the options are ideal but that the one chosen has fewer potential difficulties and offers better continuity than the others.

There was a fear that the interactive demand would quickly saturate the machine and that, as a result, the student constituency would be crowded out. One way to avoid this is to assign generally available (i.e., "public" terminals) in such a fashion that the students would essentially have a pre-specified fraction of the system. Current usage could be used as a basis for such an assignment coupled with some estimates of interactive use by constituency. The following table illustrates such an assignment.

	FY75 Batch Use in M$	Est. fract. Interact.	Est. Inter. Use in M$	Assignment of 25 Terminals
Spons Res.	1.0	0.1	0.1	5
Admin.	0.5	0.1	0.05	3
Non-Spons Res.	0.1	0.1	0.01	1
Educational	0.5	0.4	0.2	10
Free Batch	0.2	0.6	0.12	6

With a shared, centralized facility it is important that decisions, such as the allocation of public terminals, be made by a committee such as the current Computer Center Committee which represents the various constituencies.

TABLE I

Comparative Prices of Time-Sharing Services

Source	Price/ Connect-Hr.	Capacity	Services
Princeton 370/145	$ 8.60	24 user maximum 42,000 hrs./year	Most IBM software. "Compatible" with 360/91 batch.
	$ 5.60	24 user maximum 64,000 hrs./year	"
E-Quad PDP-10	$ 6.40	36 user maximum 63,000 hrs./year	Full range of DEC services. Incompatible with IBM
	$ 4.20	36 user maximum 96,000 hrs./year	"
New South 370/115	$ 7.30	6 user maximum 7000 hrs./year	Simple time-sharing Locally written software. Incompatible with IMS-2
EIS 370/158	$14.30	Up to about 12 users. Communications and storage costs included.	Limited to CALL/OS, ATS and APL
Rutgers 370/158	$11.00	"	"
Rutgers PDP-10	$19.00	"	Full range of DEC services.
First Data PDP-10	$15.00	No user limit. Price holds to 6:00 p.m. All costs included.	Full range of DEC services.
	$ 9.00	Price after 6:00 p.m. All costs included.	"
TSR, Inc.	$18.00	No user limit. All costs included.	APL service only

PRINCETON UNIVERSITY

REPORT OF THE PRIORITIES COMMITTEE TO THE PRESIDENT

Recommendations Concerning the Budget for 1976-77

January 12, 1976

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MINORITY REPORT

INTRODUCTION

As stipulated in the Charter of the Council of the Princeton University Community, the Priorities Committee has sixteen regular members: three administrative officers serving ex officio (the Provost, who is Chairman of the Committee, the Dean of the Faculty, and the University Treasurer); six faculty members (including at least one from each of the four academic divisions and at least one non-tenured member); four undergraduate students; two graduate students; and one representative of other groups on the Council (the Library staff in the case of this year's Committee). One member of the Committee, Paul Horowitz GS, resigned in November. Another member, Lawrence Hamm '78, was unable to meet with the Committee during important parts of our deliberations because of other responsibilities.

Of the fourteen members who did participate fully in the work of the Committee, thirteen of us endorse the overall set of recommendations described in this Report as well as the statements of principle and policy used to explain those recommendations. While each of us might prefer to see one or more particular recommendations changed in some respect, the differences among us are remarkably few. The other member of the Committee, Steven M. Freedman '76, disagreed with our conclusions in what he felt were more substantive ways. Mr. Freedman has written a separate statement indicating the areas of disagreement and his reasons for them. A copy of that statement is attached to this Report.

As always, the Committee wishes to express its appreciation to all those members of the University who participated in the budgetary process. We want especially to thank all those people who prepared material for the Committee and who met with us to discuss particular budgets or budgetary issues. The Committee has profited enormously from their expert assistance and, in particular, from their openness and candor in discussing what were often complex and sensitive issues. We want also to thank all those organizations and individuals who provided us with their opinions and suggestions during this process, either at one of the open meetings of the Committee or through more informal channels.

The Committee has also benefited from the contributions of those individuals who have met regularly with us, either at the suggestion of the Executive Committee of the Council or as stipulated in the Charter of the Council: Mr. Henry E. Bessire, Vice President for Development; Mr. Paul B. Firstenberg, Financial Vice President; Mr. Anthony J. Maruca, Vice President for Administrative Affairs; and Mr. Richard R. Spies, Assistant Provost and Executive Secretary of the Priorities Committee. We are also indebted to Mr. Christopher McCrudden and Ms. Donna Hirsch, who shared the responsibility of recording secretary for the Committee and served as an invaluable liaison with the Controller's Office.

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I. REVIEW OF THE CURRENT FINANCIAL SITUATION

When its January 1975 report was written, the Priorities Committee projected a deficit for the current fiscal year, 1975-76, of $1,662,000. We now project that deficit to be less than half as large, or $706,000. This change represents a substantial improvement in the University's operating budget. Nevertheless, the general financial situation remains serious.

Three factors account for the improvement in the current budget since last year's projections. First, last year's Priorities Committee continued its work into the spring and this work resulted in major savings that are reflected in the budget for the current year. The largest savings were made in academic and general administration and other supporting services. Second, the increases in the price of energy, although very substantial, have been smaller than anticipated because the rate increases requested by our supplier of natural gas and electricity have not been granted in full by the Public Utilities Commission and have taken effect later than expected. Finally, indirect cost reimbursements on sponsored research grants and contracts are higher than anticipated, both because the volume of such research has increased and because we are recovering a higher proportion of the indirect costs allowable under government regulations.

Despite these significant improvements in the current operating budget, the Priorities Committee does not feel that it would be wise to try to achieve the objective set by last year's Committee, which was a balanced budget in fiscal 1977. To do so would require even larger increases in student charges or even more substantial reductions in expenditures than we are recommending. In our view, these actions would be more damaging to the University than a deficit next year of less than half the size of that now projected for the current year. We therefore propose in this Report actions that will result in a projected deficit of about $250,000 for fiscal 1977. We further propose to have a balanced budget for fiscal 1978 and the years beyond.

The projected quarter-million dollar deficit for next year can also be viewed in another light: as a necessary transition to a balanced budget in later years. The Committee has already identified all of the expenditure reductions which -- together with our recommended increases in charges -- would be necessary to balance the budget next year. But all of these reductions cannot be made in a single year. The most obvious example is the savings projected in the teaching budget. As discussed more fully below, we estimate that it will be possible to reduce the teaching budget by something like twenty-five positions without seriously damaging the academic program of the University. However, because of the timing of retirements and of the expiration of three-year contracts for junior faculty, these savings can be achieved fully only over a three-year period. In the meantime, it does not seem to be sensible to take elsewhere even more severe retrenchment actions than we are already proposing, when we believe that the need for such actions would only be temporary, and they could probably be reversed within two years within the confines of a balanced budget.

Recommending ways to close a deficit or to maintain a balanced budget when we have one is often regarded as the principal or even the only task of the Priorities Committee. This view seems to us to be seriously deficient. Our task is far broader than that. It is nothing less than helping to preserve the health and vigor of the University and helping to insure its survival and continued progress. The bottom line of the operating budget is one indicator, but only one, of the University's health.

At one open meeting of the Priorities Committee a student asked why we did not close the deficit by spending some of the endowment rather than by trying to reduce expenditures or by raising tuition. A member of the Priorities Committee replied, emphasizing the importance of preserving the endowment. "Do you mean to tell me," asked the student, "that you expect the University to last another two hundred years?" Our answer is "Yes." To answer otherwise would be a betrayal of our predecessors, our colleagues, and our successors.

What does it mean to plan for permanence and improvement rather than allowing ourselves to drift into a slow but accelerating decline? First, it means maintaining human resources. We must preserve and strengthen the faculty and staff that make Princeton one of the world's great teaching and research institutions. We must retain our ability to attract undergraduate and graduate students with outstanding talent and promise in all the varied areas of our curriculum. And if we are to do these things, we dare not set our salaries too low, nor our tuition too high.

Second, we must preserve our physical resources. We cannot allow our buildings to deteriorate through deferring maintenance, or fail to preserve and enlarge the collections of our library.

Finally, we must preserve if at all possible the real value of our financial resources. By real value, we mean value in dollars of constant purchasing power, or in other words dollars corrected for changes in the price level. Income on our endowment and funds functioning as endowment furnishes almost one-fifth of Princeton's operating income. This proportion has remained roughly constant over a period in which total income and expenses have grown rapidly, a performance made possible by a continuing flow of gifts to Princeton and by sound investment management. However, this record can be threatened both by operating deficits and by declines in the return on invested funds.

Since 1970 Princeton, like most other private universities, has had several operating deficits. The cumulative operating deficit over this period (including the estimated deficit for the current year) has been $4,700,000, as shown in Table 1. Although this cumulative deficit is smaller than that of most other major private universities over the same period, it still has serious consequences. If reserves had not been drawn down by this amount, and it had instead been added to the endowment, it would now be providing us extra income of almost $200,000 a year, more than enough to add ten assistant professors to the faculty.

Table 1

Princeton University Operating Budget
Fiscal Years 1970-76
(millions of dollars)

Year	Income	Expenditures	Surplus or (Deficit)
1969-70	76.5	77.5	(1.0)
1970-71	77.4	78.9	(1.5)
1971-72	79.1	79.1	0
1972-73	86.5	86.5	0
1973-74	93.5	94.0	(0.5)
1974-75	105.5	106.5	(1.0)
1975-76*	118.3	119.0	(0.7)
Cumulative deficit			(4.7)

*estimated

When the real value of the endowment of a permanent institution is growing, it can be entirely prudent to use a portion of these real capital gains to finance current operations. But of course, the real value of our endowment has not grown over the past three years; not even its nominal or current value has grown. On the contrary, because of the extraordinary decline in the stock market over these years, the market value of the endowment has fallen substantially. In December, 1972 our primary investment pool reached its peak market value of $559 million. On October 31, 1975 the primary pool had a market value of $408 million. This decline in market value occurred despite the fact that over that period we added $18 million to the pool in gifts at original value. When we correct for inflation, the decline in real value is even greater.

Nor should it be thought that the decline in the value of our endowment reflects poor portfolio management. Endowments of other endowed institutions as well as all of the broad stock market averages have declined by similar percentages over the same period. Over a period of many years, the record of the Princeton portfolio has been a very good one.

The operating budget and the performance of the endowment are measures of our financial situation at present and in the past. To assess our situation fully, we must also look to the future and consider the general economic outlook. The U. S. economy still seems to face the prospect of continued substantial inflation. After consulting the best economists we know, in government and in the private sector, we conclude that prices will continue to rise in 1976 and beyond by about six percent a year on average. This inflation is reflected to a greater or lesser extent in the prices of all the things the University buys, including energy, food, books, and supplies. The inflation also means that salaries must rise by as much as the price level just to keep the standards of living of our employees from declining. As the Priorities Committee has noted many times in past reports, the production of educational services does not afford the same opportunity for technological change and growth in productivity as does the production of such physical goods as wheat or steel or desk calculators. This is particularly true of the special kind of education that Princeton provides. Without substantial opportunity for technological change, the cost and price of educational services produced at Princeton must rise faster than the general price level. That we all dislike this conclusion does not permit us to escape it.

It is because of the factors just discussed that all major universities, public and private, are having financial problems similar to Princeton's. Most are reducing the size of their faculties, curtailing their activities, and restricting salary budgets. In many cases these economy measures are far more severe than those we find it necessary to propose. We know of no major university that is not finding it necessary to raise charges to students. At the same time, some have found it impossible to increase the amounts budgeted for student aid. Finally, despite these measures, most universities still have substantial budget deficits. We cite these facts not because misery loves company, but to show that very little if any of our problem arises from unique local causes.

It is against this rather somber background that we present our recommendations.

II. THE WORK OF THE PRIORITIES COMMITTEE

The work of the Priorities Committee this year has in several ways been more difficult than in previous years. This is not because the problems have been harder, although they have not been easy, but because there has been less consensus on how to approach them. In addition, there have been two other complicating factors. First, last year's Committee was unable to include in its report a provisional plan for the years beyond 1976. Such a provisional plan has usually been the starting point for the Committee's work. Second, there was an unusually large turnover of membership in the Committee.

The procedural issue on which the Committee is divided concerns the extent to which the day-to-day work of the Committee should be public. A minority feels that all meetings should be open and all data submitted to the Committee should be made public, except as the Committee specifically decides otherwise. The majority feels that such procedures would lower the quality of the information that would be submitted to the Committee, and would perhaps lead to ungrounded fears about budget cuts that are mentioned as possibilities, but in the end are not seriously considered. In addition, some of the written and statistical material submitted to the Committee is not very meaningful without the discussion that explains and interprets it. Finally, the proposed procedures would make it difficult for the University to conduct negotiations of various kinds. It has also been argued that premature release of recommendations could undermine the essential advisory relationship between the Committee and the President and the President and the Trustees.

Although the majority view has prevailed, there is general agreement in the Committee that the campus community should be kept better informed than it has been in previous years. Guidelines for providing more information were adopted and are reproduced in the Report as Appendix B.

In accordance with these guidelines, the Committee held three public meetings on different aspects of its work, all of which were well attended. It also released to The Daily Princetonian substantial amounts of detailed data on the current estimate of the 1975-76 budget.

In November, one member of the Committee, Mr. Paul Horowitz GS, resigned from the Committee. He stated that in his view the guidelines had not been fully implemented and released to The Daily Princetonian all the confidential material he had received as a Committee member. Following his resignation, the continuing members of the Committee again discussed at length the issue of confidentiality and reaffirmed their pledges to one another not to divulge confidential data. Despite these renewed assurances, new and substantial disclosures of confidential material were made to the Princetonian after the Committee's meeting of December 10th. It is not possible to measure the extent, if any, to which these events have impaired the frankness of the Committee's discussions. It is clear that they have been time consuming and have distracted attention from substantive work.

The events related above raise some serious questions about the governance of the University and the future procedures of the Priorities Committee. However, this is not the place to explore these problems. They will be considered in depth by others, including the Governance Committee of the Council of the Princeton University Community.

Despite its procedural problems, the Priorities Committee has worked hard on substantive issues. Much of this work has been done in three subcommittees, each of which met four or five times during the fall. The first of these covered academic affairs, including faculty staffing, the Computer Center, the Library, and McCarter Theatre. The second covered student life, including the budgets of the Dean of Student Affairs, Dormitories and Food Services, Athletics, Health Services, and Security. The third subcommittee covered administration, including faculty and staff housing, and physical plant.

In most cases, administrators who made presentations at a meeting of a subcommittee did not have to repeat them for the full Committee, though in a few cases, presentations were made at both levels.

The Committee is fully aware that its recommendations have force only to the extent to which they are accepted by the President and the Trustees. It would like to assure those to whom these recommendations are directed as well as the University community at large that the recommendations have been very carefully considered. They have survived a long deliberative process in which many alternative recommendations were weighed and rejected.

Many of the recommendations were chosen from among alternatives presented to the Committee by administrative officers, both academic and nonacademic, whose budget requests are the starting point of the Committee's work. These requests were themselves carefully prepared and reflect a keen and widespread understanding of the University's financial situation. In some cases, the Committee has accepted such requests with little or no change. This does not mean that the Committee has not examined them carefully, but only that on careful examination it concludes that the administrators concerned have proposed measures that will keep expenses as low, or raise revenues as much, as the Committee considers possible or prudent.

In past years, the Committee has reviewed the guidelines that went to administrators to help them prepare budget requests. This year, in order to save time, a guidelines letter was sent by the Provost before the first meeting of the Committee. A copy of this letter is included in the Report as Appendix C.

The task of the Priorities Committee is to make recommendations about the main parameters of the budget, such as tuition and fees, the size of salary pools, and the size of the faculty. Specific budget cuts are discussed when they have important implications. However, the Committee has neither the competence nor the time to examine the budget of every department in detail each year, nor to specify precisely where each budget cut should fall. For example, when the Committee recommends a reduction in the size of the faculty, it does not recommend in which departments the cuts should be made. That is the job of the Dean of the Faculty in consultation with the other academic deans. Administrators who make presentations to the Committee usually give examples of the kinds of consequences that would flow from cuts of various amounts in the budget requests, so that the Committee can judge the degree of pain that each level of cuts would cause. From such information, the Committee can recommend policy, but it cannot and does not pretend to manage in detail the way in which this policy should be carried out.

The decisions that the Committee must make about the main parameters of the budget are best viewed as a set of trade-offs among the items that are under the University's control. A larger faculty is possible, but only at the expense of such things as higher tuition and fees or smaller salary increases. One can spend more on the library, or on athletics, but only at the cost of spending less elsewhere. The detailed discussion of the Committee helps the members get a sense of the costs and benefits of moving in various directions, costs and benefits that are not always easily perceived and understood. And this discussion is disciplined by certain imperatives: some key parameters, such as the rate of inflation, are beyond the University's control; they can be estimated but not influenced. One cannot simultaneously have more of everything. And finally, there is no unique right answer to difficult problems. No matter how much judgment is informed by facts and figures and by argument, in the end the decisions are matters of judgment. What is most important to the University? What is most important to preserve, to expand, to improve? What is less important, and can be sacrificed if necessary? It is at this stage that the diverse viewpoints and values of the Committee members come into play, rub against one another, and are finally reconciled. The process is never smooth or easy. It contains no guarantees against errors. But we feel that it produces a set of recommendations that take into account as fully as possible the values that the major groups in the University hold to be important.

III. SPECIFIC RECOMMENDATIONS FOR 1976-77

The purpose of this section of the report is to discuss the Committee's specific budget recommendations for 1976-77 (FY77). In a few areas specific recommendations are also being made for FY78 and beyond. These recommendations are discussed in this section and incorporated in the Provisional Plan described in Chapter IV.

Our specific recommendations fall into nine basic categories. Sections 1 and 2 of this chapter discuss student charges and financial aid, for undergraduates and graduate students respectively. The other seven sections deal with the major expenditure categories which the Committee has reviewed. For most of these items detailed information on past and current budgets was made available by the Committee in the course of its fall review. Copies of this material are on reserve in Firestone Library and are available in all branch libraries. We invite anyone interested in learning more about any of these budgets to examine this material.

1. Student Charges and Financial Aid: Undergraduate. As usual, the Committee spent a great deal of time discussing possible increases in tuition and other charges and the effects those increases would have on students and their families, both students who are already enrolled and would have to pay these charges and potential students who have not yet decided whether or not to apply to Princeton. For 1976-77 we are recommending that undergraduate charges be increased a total of $475 over their current level. This increase -- $400 in tuition, $50 in the room charge, and $25 in the cost of a twenty-meal contract at a University dining facility -- will result in a total student charge for next year of $6,275 ($4,300 tuition, $880 room, $1,095 board), an increase of approximately 8.2% over the current year. At the same time, we are recommending that the budget for undergraduate scholarships be increased by approximately $400,000 (almost 10%) to $4,558,000. We believe that at this time no undergraduate should

have to leave Princeton because he or she does not have the financial resources to pay the tuition and other charges. The scholarship budget we are recommending, together with the employment opportunities and loan funds already available, provides sufficient financial aid to meet the demonstrated needs of every undergraduate.

Total Student Charges. Before we talk about the effects of the increases being recommended, it is important for everyone to understand that the revenues they will generate are essential if the quality of Princeton's educational program is to be sustained. Last year's Priorities Committee report discussed the University's other sources of funds in some detail and explained why they have not all been able to keep pace with the cost of our programs. Later in this report, we will talk about the expenditure side of the budget and why we think it would be a mistake to make further reductions there. This leaves us, then, with a situation in which expenses are rising faster than income; obviously something has to give. As much as we regret it, we believe that it is necessary at this time to ask students and their families to bear at least a share of these increased costs in the form of higher tuition and other charges. The tuition increase alone will generate over $2.2 million in new revenue ($1.4 million when the offsetting increases in undergraduate and graduate student financial aid are taken into account). Without these funds, major cuts in programs would be necessary, and the quality of education would be seriously affected. Indeed, one of the expenditure items that would almost certainly have to be reduced is student aid; such action would only serve to shift the burden of increased charges on to the financial aid students who are, by definition, the people least able to bear it.

We do not mean to imply, however, that increases in charges are treated lightly, or are considered as a residual item, to be discussed only after the rest of our budget recommendations are chiseled in stone. The Committee makes a conscious effort to weigh all the major budget alternatives against one another; increasing student charges represents only one of those alternatives. We believe that an increase of this magnitude, as difficult as it is, will in fact have less injurious effects on the University as a whole than any of the other possible actions we have explored. We feel, therefore, that we have no choice but to include these increases in our overall set of recommendations to the President.

In talking about the effects of any increase in charges, it is important to view the whole question of tuition and fees in its historical context. In the budget we are recommending to the President, tuition is expected to account for only 19.4% ($24,537,000) of the University's total income; twenty years ago, it made up 17.6% of the total. Despite an increase in enrollment (graduate and undergraduate) of about 60% and an increase of more than 250% in tuition levels over those twenty years, the relative contribution of tuition income to the University's total budget has increased by less than two percentage points. Despite the substantial increases of the last few years, it is still true that tuition covers only about half the cost of a student's education. The other half is contributed, as it was twenty years ago, by alumni and other past and present friends of the University.

It is also revealing to compare the increases in tuition and other charges over the last twenty years with changes in income levels in the United States. Using median family income in the U. S. as a measure of income levels and taking 1954-55 as a base, Table 2 gives such a comparison. The numbers shown there indicate that income has risen faster than student charges, so that the cost of attending Princeton has actually fallen as a percentage of median family income. This drop is a very small one, of course, and certainly does not represent any significant decline in the relative cost of a Princeton education. (Indeed, it will almost certainly be more than wiped out in 1975-76 since charges rose more than 12% while incomes went up at a slower rate because of the recession.) Still, it is important to note that, contrary to what some of us might have expected to find, this ratio has not risen over this period. The fact that student charges bear approximately the same relationship to income levels as they did twenty years ago implies that the average family would have no more difficulty supporting a son or daughter at Princeton today than they would have had two decades ago.

Table 2

	Median Family Income in U.S.[1]	Princeton Total Charges[1] [2]
1954-55	100.0	100.0
1959-60	129.8	141.1
1964-65	157.4	164.4
1969-70	226.0	206.5
1970-71	236.4	221.8
1971-72	246.5	245.9
1972-73	266.4	260.6
1973-74	288.8	280.0
1974-75	307.6	304.4

[1] To facilitate comparisons, income and costs have been expressed as index numbers, with 1954-55 levels set at 100.

[2] Tuition plus room and board.

In discussing student charges, the Committee has always been concerned about the effect that any increase in those charges could have on students who might apply to Princeton. We are concerned not only about the number of students who apply, but also about the quality and diversity of these applicants. It is difficult to know precisely what effect tuition levels have on students trying to decide what college they want to attend, but the research that has been done on this subject seems to indicate that financial concerns play a relatively minor role in this process. The evidence suggests that the quality of a school's educational program is much more important to the students in the highest ability ranges, even those from low- and middle-income families.

This finding is consistent with -- and reinforced by -- Princeton's own admission experience. Despite the increases in charges of the last few years, the number of applications at both the undergraduate and graduate level have more than held their own, actually rising over this period. There does not seem to be any evidence, either, that the composition of the applicant pool has changed significantly over the last few years, at least not at the undergraduate level. The proportions of aid students and of minority students applying, for example, have fluctuated up and down in recent years, but there has not been any noticeable downward trend for either.

Also, what data there are (principally the survey of freshmen conducted every year by the American Council on Education) seem to suggest that there has not been any "squeezing out" of either low-income students or those from the so-called "middle-income" groups (roughly $15,000-$25,000 annual income). Princeton students by and large come from families with incomes well above the national average, but this is less true than it was ten years ago. Even today, despite what is a very clear -- and understandable -- concern on the part of many students and their families about the high cost of attending Princeton, there does not appear to have been any trend away from low- and middle-income students among Princeton undergraduates. Finally, there is absolutely no evidence that students are applying to Princeton and then turning down our offer of admission to go to less expensive schools. For the class of '79, over 57% of the students who declined Princeton's offer of admission went to Harvard/Radcliffe or Yale; fewer than 5% of them went to state universities or other public institutions.

In trying to assess the impact of a tuition increase on applicant pools, the Committee also considers how our charges compare with those of other schools with which we normally compete. For the current year undergraduate tuition in the Ivy League ranges from $3, 740 at Harvard to $4, 050 at Yale, with Princeton almost exactly halfway in between at $3, 900. Very few schools are as far along in their planning for next year as we are, but preliminary indications are that the increases we are recommending will not change our competitive position. Indeed, most of the schools with which we normally compete are likely to increase total student charges by more than the $475 being recommended here.

Room and Board Rates. From all the public discussion of the undergraduate dormitory and dining system, it is clear that there is a great deal of misunderstanding about how decisions are made in this area. Before describing our specific recommendations, it would probably be useful for us to explain our view of the situation. There are, we think, three basic points that should be made.

First, the undergraduate dormitory and dining system does not directly "subsidize" other housing and food service operations. (Indirectly, of course, any activity of the University that runs an operating surplus "subsidizes" other University activities, in the same way that tuition "subsidizes" these activities.) Room and board rates for undergraduates are set completely independently, without regard to the deficits or surpluses at the Graduate College and other Dormitory and Food Services units. All these units are meant to serve different functions within the University and so we believe that decisions about the charges to be levied to users should also be made separately. The dining facilities for faculty and staff, for example, are considered one of the basic costs of being an employer, and any deficits in these operations are at least partially recovered from sponsored research contracts. These facilities are lumped together in official documents because they are managed by the same administrative department, not because they are expected as a group to achieve some predetermined overall financial result.

Second, it is not at all surprising that the undergraduate system runs an operating surplus while most other units run deficits. In the operation of facilities of this type, particularly dining halls, it is almost always true that the more people a facility serves, the more efficient it is. It is a simple fact that some costs associated with a dining hall have to be incurred no matter how many people eat there. Commons, for example, runs a sizeable surplus in its operation while the other undergraduate dining halls do not simply because Commons' size gives it an inherent advantage in terms of efficiency. In the jargon of our economist members, there are "economies of scale" at work here. All of this was discussed in some detail -- and apparently well understood by everyone involved -- when the decision was made two years ago to adopt a policy of uniform board rates for all undergraduate dining facilities.

Third, in a very real sense it is wrong to talk about the so-called "surplus" for any of these units, even for undergraduate dormitories and dining halls. In none of these calculations is any provision made for the enormous capital costs of this system. It took a great deal of money to build these facilities and that money could theoretically have been put into the endowment instead. Once in the endowment this money would have produced a steady stream of income which could have been used to pay faculty salaries, to buy library books, or to keep tuition down. We could then have borrowed the money to build the dormitories and dining halls, as many colleges have done, explicitly including the mortgage expenses as one of the costs of the facilities. If these "capital" costs were properly accounted for under our current system, none of the DFS units would be running a surplus. In view of this, the Priorities Committee has always argued that it was entirely appropriate for the undergraduate system to run an operating surplus, as it is presently defined.

Having said all that, however, we have to say that we think the current level of surplus is somewhat higher than it should be. The main reason for this is that energy costs have not risen as much as we had expected and that major reductions in other areas of the DFS budget have been achieved over the last year. We do not feel, therefore, that it would be appropriate to recommend either further large reductions in this budget or new increases in room and board rates anything like the increases implemented for the current year.

As mentioned earlier, we are recommending a $50 increase in the room rate and a $25 increase in the board rate for undergraduates. This will raise the room rate to $880 for rooms without kitchens and $930 for rooms in Spelman and other dorms with kitchen facilities. The board rate will rise to $1,095 for a twenty-meal contract. Keeping the increases at this level is expected to result in an operating surplus for the undergraduate system next year almost $200,000 smaller than the level projected for the current year.

Finally, we should say just a word about the expenditure side of the dormitory and dining hall budgets. As the table in Appendix D indicates, over $300,000 was cut from this budget last year. At this point we think that any further across-the-board cuts would be counterproductive. This opinion is shared by the representatives of Laventhol and Horwath who have been examining DFS operations. (This independent accounting and consulting firm has been retained to help the University identify ways of improving efficiency in this area.) In a recent letter to Financial Vice President Paul Firstenberg, they said: "We conclude, based on our survey to date, that any further reduction in either this budget year [1975-76] or next would result in a further reduction in the current quality of Food Services and that such expenditure reductions would be inadvisable. We have not uncovered any opportunities for economies that would lead to expenditure reductions without reducing the quality of Food Services."

Undergraduate Financial Aid. In addition to its effect on applicant pools, the Committee is clearly concerned about the effect of an increase in

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charges on students already enrolled at Princeton. Here, however, we believe that the appropriate response is not to keep charges at an artificially low level but instead to compensate for any increases that may be required by also increasing the scholarship budget. This means that students who can afford to pay the higher charges will be asked to do so, but those students who are not able to pay will be provided with financial aid. Such a policy enables the University to recover at least a portion of its increased costs from those who benefit most directly from the educational facilities it provides, without compromising its commitment to maintaining the quality and diversity of the student body.

We attach a very high priority to this objective and we think that the scholarship budget we are recommending reflects this quite clearly. That budget will again enable us to assure every student that the financial aid he or she requires will be available. That is an assurance very few colleges and universities can give these days. Even some of our sister institutions in the Ivy League have been forced by the current financial crisis to limit the amount of student aid they provide. It is also an assurance which Princeton has not always been able to give.

Financial aid students will not be fully insulated from the burden of increasing costs, however. It is reasonable to expect a family whose income has gone up to contribute at least a little bit more to the cost of their child's education; a small increase in average parental contribution has been built into this budget, therefore, since incomes generally are expected to rise over the next year. It is important to understand, however, that the amount an individual family is actually expected to contribute depends on its own financial situation, rather than on the level of student charges. For any student whose family financial situation remains unchanged next year or for whom the increase in expected family contribution is less than the increase in costs, enough financial aid will be provided to make up the difference.

Aid students are also affected by the composition of the financial aid "package" that is provided. To the extent that students are asked to contribute more from term-time or summer earnings or to borrow more rather than simply being given additional scholarship dollars, they are being asked to shoulder a somewhat larger burden. The Committee on Undergraduate Admission and Financial Aid discussed this burden and its implications. Their conclusion, as expressed in their recommendations to this Committee, was that it was reasonable to expect financial aid students to increase somewhat the dollar amount that they contribute themselves from loans and job earnings, but that this increase should be carefully controlled. In particular, they recommended the following actions with respect to the various components of self-help:

(1) Earnings from summer jobs can be expected to increase in 1976 by $50 for returning students, remaining level for incoming freshmen. This recommendation raises the earnings expectation to the average amount actually earned by aid students in the summer of 1975. The increase represents mainly inflation in the general level of wage rates. (Last year the scholarship budget was augmented to provide assistance for students who were unable to find summer jobs because of the recession. The budget we are recommending for next year includes a similar amount of money for this purpose.)

(2) Earnings from term-time employment can be expected to increase by $80 in 1976-77 over the current level. This does not represent an increase in the number of hours a student will be expected to work, however, but rather reflects a recommended rise in student wage rates. The earnings expectation is still based on the assumption that a student will work, on the average, ten hours a week for thirty weeks, earning the minimum wage for members of his or her class. Since the Financial Aid Office is able to guarantee jobs for all aid students, it seems reasonable to expect students to meet at least some of the cost of their education in this way. The standard of ten hours a week was adopted several years ago.

(3) The loan expectation should increase by $50 to $1,250 ($1,050 for low-income students). The loan expectation has been increased $100 each year for the last several years and is now among the highest in the Ivy League. The loans provided by the Financial Aid Office through the two Federal loan programs carry very favorable terms (7% rate of interest in one case and 3% in the other; ten years to repay; no interest charged until nine months after the student completes school, including any graduate or professional training), but there is a legal limit to the amount students can borrow under these programs. In order to keep the burden on students to a minimum and to preserve the flexibility they now have to borrow to meet unexpected needs and still stay under the legal limit, the Committee on Undergraduate Admission and Financial Aid believes that the increase should be held to $50 for next year. For the individual student a $50 increase in total borrowing will increase the amount that he or she will have to repay by less than sixty cents a month.

The Priorities Committee endorses these recommendations of the Committee on Undergraduate Admission and Financial Aid. There are enormous benefits which accrue to all members of the University community and to the educational program itself from having a student body that is socially, culturally, and economically diverse. We believe, therefore, that student aid should be one of our highest priorities. The budget we are recommending reflects that conviction.

2. Student Charges and Financial Aid: Graduate. For graduate students, we are also recommending an increase in tuition of $400 (to $4,400). In addition, we are recommending an average increase in room and board rates at the Graduate College of $165 and an 8% increase in rents for married graduate student apartments. Finally, we are recommending that the budget for University Fellowships be increased. The increase we are recommending will provide funds to improve the mix of University Fellowships slightly and to increase the stipend levels for some fellowships, in addition to offsetting the higher tuition costs for all University Fellows.

Student Charges. Much of what was said earlier about the effects of increased charges on undergraduate students and their families applies equally well to graduate students. If Princeton is to continue to attract students of real quality to its graduate programs, we must remain financially, as well as academically competitive. The Committee shares the concern of the Dean of the Graduate School and others that Princeton's relatively high charges will make it increasingly difficult for us to compete for the very best students. As in the case of undergraduate admissions, however, there is no evidence that the increases to date have significantly affected our ability to attract students. Again, given the need for new revenue from all sources, we feel that we must recommend a further increase in graduate student charges.

Housing and Dining. The $165 average increase we are recommending for Graduate College room and board rates amounts to just over 10%. We realize that an increase of this magnitude represents a significant burden for many students, but, at a time when resources are so scarce for graduate student support, we believe that what funds there are should be distributed directly through the fellowship budget rather than indirectly through housing and dining subsidies. The increases we are recommending for the Graduate College are designed to make a modest dent in its current operating deficit and to begin to close the gap between the graduate and undergraduate room and board rates. We also recommend that an effort be made to identify other ways to reduce this deficit. One example of this is the recent decision to discontinue the serving of lunch at the Graduate College. We applaud the efforts of the Graduate College House Committee, the Office of the Dean of the Graduate School, and the various Food Services administrators in working out this arrangement.

For the graduate student apartments in Butler Tract and Lawrence Court, we recommend a general 8% increase in rents. This increase is smaller than the 9% and 10% increases of the past two years but still reduces somewhat the operating deficits in these units. As we stated above in our discussion of charges at the Graduate College, we believe that in general it is more equitable to distribute aid to graduate students directly through the fellowship budget rather than through housing subsidies. In this case, however, we think there is a limit to the amount which the University should raise rents in order to accomplish that objective and, in fact, vacancy rates for these apartments have risen somewhat in recent years. It seems to us that an 8% rate of increase represents a reasonable compromise between the need to reduce the operating deficits of these units on the one hand and the need to keep rents as low as possible on the other.

Graduate Student Support. After several years of very sharp decline, support for graduate education on the part of the Federal Government and the major foundations appears to have stabilized, although at a distressingly low level. About a quarter of our current graduate students have outside (non-University) fellowships compared to 57% in 1969. Another third of the students are supported as Assistants in Instruction or Assistants in Research and about 10% receive no financial support at all. The rest -- roughly 30% -- receive University Fellowships, which vary from tuition-only awards up to tuition plus a stipend of $2,500. Unless some action is taken on the national level, presumably by the Federal Government, to increase the external support of graduate education, the present pattern of support is likely to prevail for the foreseeable future.

For next year we are recommending an increase in the funds available for graduate student support. The budget that was proposed by the Dean of the Graduate School provided for a small increase in the stipends for some categories of University Fellowships (specifically the "B" and "C" Fellowships for continuing students) and a somewhat larger number of the very best ("A") University Fellowships for incoming students. It is hoped that these increases will offset at least partially the effects of inflation on the costs students face and also improve somewhat Princeton's position in the competition for the very best graduate students. Even at a time when we are recommending major reductions in other areas of the budget, we feel that an increase of this kind is necessary.

3. Faculty Staffing. Last year the Priorities Committee recommended a reduction in the size of the faculty charged to the teaching budget of approximately eight full-time equivalents (FTE's). The Committee also requested that the Dean of the Faculty, in consultation with the Dean of the College, the Dean of the Graduate School, and the Provost, explore in detail the implications of further reductions in the size of the faculty. As a result of that review and our discussions with the Deans, we believe that the teaching budget can be reduced by an additional ten FTE's for 1976-77.

This was not an easy decision for any of us to come to. The faculty of a university constitutes its most basic element and one of its most valuable assets. The reductions we are proposing here, together with the cut of eight already implemented for the current year, amount to a total reduction in the size of the faculty of approximately 3%. This is definitely not a trivial cut and it will have an impact on some aspects of the educational program. We do not think, however, that the faculty can be immune from cuts at a time when major reductions are being made in other areas of the University.

The Priorities Committee itself does not review the staffing requests of individual departments. Instead we rely on the review conducted by the Dean of the Faculty in the normal course of his duties as well as the special review of academic departments and programs that he and the other Deans have carried out over the last year. We have discussed this review with the Deans, however, and, in particular, we have discussed the various criteria they have used in trying to determine where cuts might be sustained. They have, of course, considered the teaching load of a Department as one of the important determinants of its staffing needs. Indeed, they now believe that a reduction of ten FTE's can be achieved in most (although not all) instances by reducing staffing in those departments where enrollments have either fallen in recent years or have historically been quite low. This means that teaching loads in the busiest departments should in general not increase any further. In fact, in most of the departments where reductions are planned, student-faculty ratios will still be lower than the average for the University as a whole.

The Deans have also tried to insure that fields of study which are of clear importance to the University are preserved. This problem is particularly acute in small departments where staff reductions of a single FTE can seriously affect a department's ability to cover adequately all the relevant fields. The problem is not limited to small departments, however. Some of the larger, more heavily-enrolled departments have problems of field coverage. In addition, it is important in all departments for faculty members to have time to devote to research and scholarship. We believe the Deans have been sensitive to all these different considerations and we are persuaded that the approach to faculty reductions they have outlined for us is a sound one.

Finally, it is important to note that some of these positions will not be lost entirely but will be supported instead by sponsored research funds. In addition, new restricted funds (such as the Mellon grant which will support four new junior faculty appointments in the Humanities) will provide for at least a few additions to the faculty. All of this means that the reduction in the size of the total faculty, while significant, will actually be less than the ten FTE's being proposed for the teaching budget.

4. Library. Next to the faculty, an excellent research library is probably a university's greatest single asset, the core around which programs of teaching and scholarship are built. The Princeton University Library is clearly one of the best academic libraries in the country, but like all libraries it has been hard hit by inflation and by the increasing demands placed on it by its users. This latter problem has been especially acute at Princeton where the student body has not only grown in size in recent years but has also become more diverse. In some cases faculty and students are now working intensively in fields that were relatively untouched at Princeton just a few years ago. This development,

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together with the recent increase in academic pursuits generally, has made it very difficult for the Library, operating under quite stringent budget constraints, to serve its users as fully as it would like.

In order to respond to these increases in user needs and to help offset the effects of inflation, the Library requested an increase of just over 2% for staff (not including salary increases) and an increase of 9% in the amount allocated from general funds for acquisitions. We feel that these increases are warranted and we recommend that they be approved. At the same time, we feel that other savings can and should be achieved in the Library. We were particularly impressed in our discussions with the University Librarian by the savings that might be achieved through automation, through consolidation of some library activities, and through more equitable cost-sharing arrangements with non-University users of library services. Mr. Richard Boss, the University Librarian, and other members of the Library staff are actively pursuing many of these possibilities with the appropriate user groups and we urge them to continue this effort. We realize that some of these proposals will inevitably involve controversy and possibly even some inconvenience for faculty and students used to the current mode of operation. We hope that this will be temporary, however, and we ask all library users to keep in mind the substantial savings that could be realized and also, perhaps more importantly, the potential for very real improvements in service that could result.

By 1979-80 we expect that actions of this kind will result in savings of about $250,000 a year below what the Library budget would otherwise have been. Because of the complexity of the issues involved and because of the extensive consultation that will be required before any of these proposals can be implemented, we do not expect that a major part of that saving can be achieved in the first year. We recommend, therefore, that the budget request be reduced by only $50,000 for FY77 and that additional savings be phased in over the period of the Provisional Plan, reaching the ultimate level of $250,000 per year in FY80.

5. Computer Center. A modern computer center, like an excellent library, is essential if a university is to develop and preserve truly outstanding programs of instruction and research. We think a major improvement was made in the quality of computing at Princeton with the acquisition last summer of an IBM 370/158 computer. This machine, combined with the 360/91 purchased in 1969, gives Princeton an enormous amount of computing power and, more important, a much fuller range of computing services than we have ever had before. The objective now should be to consolidate what we have and to learn to use this powerful new resource more effectively. Clearly no major new expansion of computing facilities can be contemplated for the next few years.

For next year's budget, the Computer Center requested essentially a continuation of the current level of support, with only enough of an increase to account for inflation, plus a modest increase in the number of time-sharing terminals in order to allow students and faculty to make better use of the 370/158. We believe that these increases are justified, but at the same time we think it is possible to achieve some savings in the Computer Center's basic operation. Therefore, we are recommending a budget for the Computer Center which is $125,000 below the requested amount. Mr. James Poage, the Director of the Computer Center, assures us that such a cut can be made without seriously eroding basic computer services and without giving up the new time-sharing terminals he had requested.

Almost half of the total saving will be achieved by purchasing equipment we are now renting. This will save a considerable amount of money, but it will also reduce the Computer Center's ability to respond to changes in technology since it will, in effect, lock us into equipment that could become obsolete. Given the rapid change in technology we have seen in this field in the past, one should not underestimate the impact that this loss of flexibility will have on the Computer Center and its users. Still, given the reductions we are recommending in other areas of the University, we think it would be a mistake not to take advantage of these savings.

The rest of the $125,000 in savings will be achieved through a whole host of relatively small steps: reducing the number of night operators, downgrading an existing job, reducing paper costs, removing some equipment that is not heavily used, etc. None of these actions will be painless, but they should not have any major impact on the ability of users to get their basic computing work done. Any further cuts would, in our opinion, have such an impact and would be counterproductive.

6. McCarter Theatre. Last year the Priorities Committee spent a great deal of time discussing McCarter Theatre. They concluded that the benefits to the University community are substantial and that the Theatre should continue to receive at least some University support if at all possible. The Committee then recommended that the University provide a direct subsidy of up to $115,000 to the Theatre for 1975-76 and expressed the hope that similar amounts could be provided for 1976-77 and beyond. This subsidy has enabled McCarter to go forward with -- and even to expand somewhat -- its various activities, including the Drama Series and the special events the Theatre arranges, such as concerts, dance events, and films.

The dilemma facing this year's Committee has been much more difficult. For the last few years McCarter has been the recipient of a few major foundation grants to help support the Drama Series, thus enabling us to keep the University subsidy in the $100,000 - $150,000 range. Those grants run out at the end of the current fiscal year (1975-76) and, despite the efforts of a large number of people both in the Theatre and in the Development Office of the University, sufficient funds have not yet been found to replace them. If the Theatre were to continue its present level of operations without any new outside support, the University subsidy would have to rise to something in excess of $200,000. At a time when we are recommending reductions in almost every other area of the University, we do not think such an increase can be justified. Weighing the activities of McCarter Theatre against further reductions in the size of the faculty, against further increases in tuition, indeed against all the other alternatives this Committee has reviewed, we simply do not feel that we can recommend a $100,000 increase in the subsidy.

We are recommending, therefore, that an upper limit of $110,000 be placed on the subsidy for FY77 and that a similar limit be built into the Provisional Plan for FY78 and beyond. We recognize that this limit could lead to the suspension of the Drama Series, but we hope that will not have to happen. Indeed, one of the reasons we chose this particular number as the recommended level of subsidy is that it is greater than the amount of subsidy we feel would be required if McCarter did nothing but book the kinds of special events and other activities that take place under its direction, i.e., everything but the Drama Series itself. By this action we hope to indicate our support of the Drama Series as an educational and cultural resource.

The Theatre has already begun to explore the feasibility of continuing the Drama Series with this level of University support. There are, we believe, three basic strategies which the McCarter Theatre Board can pursue:

(1) try once more to replace the outside grants which are expiring at the end of this year. The Theatre is clearly a regional resource as well as a University resource, and efforts are being made to encourage members of the community and various governmental agencies to provide additional support. The more traditional sources of funding are, of course, being approached again as well.

(2) increase revenues from ticket sales. This can be done either by raising ticket prices or by increasing attendance, or both. There is clearly a limit to the amount of revenue that can be generated in this way, but we think this should be explored in detail.

(3) reduce expenses, either in the administrative expenses of the Theatre or in the productions themselves.

We are, of course, hopeful that these efforts will succeed and that the Drama Series will continue. It is fair to say, however, that this hope is no more than that -- a hope -- and that there is a possibility that the Drama Series will have to be suspended. We think the loss to the University and to the community will be a significant one if that has to happen, but we believe that an increase in the University subsidy is simply not possible at this time.

It should be noted that this recommendation, if adopted, will have no direct effect on the undergraduate Program in Theatre and Dance. Our whole discussion has dealt only with McCarter Theatre itself and not with any of the academic or extracurricular theatre activities on the campus. Clearly, the loss of the Drama Series would have an indirect effect on these activities (and on the general state of the performing arts at Princeton), but there will be no direct impact on the amount of University support received by any of these organizations.

7. Student Life Activities. This year a subcommittee of the Priorities Committee looked at all the different areas where University money is used to support the non-academic activities of students, particularly undergraduates. This subcommittee relied heavily on the help and advice of the Dean of Student Affairs and her staff and on the faculty and student committees on undergraduate life. Dean Simmons and Mr. Charles Albert '76, the chairman of the student Undergraduate Life Committee, met with the subcommittee throughout the fall.

In the course of the fall this group discussed the following areas: the Dean of Student Affairs Office, including the colleges, halls, and other social facilities; Dormitory and Food Services; the Department of Athletics, Physical Education, and Recreation; the Security Department; and University Health Services.

Dean of Student Affairs Office. In our review of this budget we considered a great number of possible actions, most of which have been discussed quite widely in The Daily Princetonian and at our open meetings. We explored the possibility of closing a residential college, for example, because that seemed to us to be one of the ways in which a sizable amount of money could be saved in this area. As a result of our discussions with the Undergraduate Life Committee, with the Masters and other staff members in these facilities and with groups of students, we now believe that the consequences of such an action would be much more serious than anything being recommended by the Committee in other areas of the University. Therefore, we are not recommending that any dining or social facility be closed.

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At the same time, we do believe that some savings can be achieved in this general area. In particular, a modest amount of money can be saved by reducing slightly the number of resident advisers (and adjusting the process by which freshmen are assigned rooms so that the maximum number of freshmen per RA does not increase), reducing somewhat the number of faculty who live in undergraduate dormitories, reducing the budgets for meals for faculty fellows and other guests, and by making other, smaller adjustments in the allocations of staff and operating expenses. Combined with the reductions that were recommended by the Priorities Committee last year, these actions result in a total savings of almost $35,000, a reduction of about 7% in this budget of approximately $500,000. This budget was quite lean to begin with compared to those at most similar universities, and we believe that cutting it further would have a serious effect on these very valuable programs. The cuts we are recommending, however, seem to us to make sense and to be consistent with actions we are recommending elsewhere in the University.

Dormitory and Food Services. As we indicated earlier in this report (in our discussion of room and board rates), we do not believe that any major savings are possible in this area. A number of relatively minor cost-saving actions are still being explored, but these will all involve specific reductions in service, such as serving Madison Society dinners at the Student Center. We expect that these actions will result in a total saving of approximately $20,000.

Athletics. The Athletics Department budget has been reviewed in considerable detail in every year of the Priorities Committee's existence. Last year, for example, the Committee recommended a cut of more than $100,000 in this budget (about 5.7%), including the elimination of the equivalent of five full-time positions. We now believe that substantial savings beyond this would require joint action on the part of the whole Ivy League or the actual elimination of some intercollegiate program. We hope that the Council of Ivy League Presidents will find additional ways for all the schools to save money and still achieve the very worthwhile objectives of their intercollegiate sports programs, and we urge President Bowen to continue to work with this group. In the meantime, we do not believe that Princeton should drop intercollegiate programs that meet so effectively the needs of our students. Interest in intercollegiate sports and other athletic activities has grown in recent years, particularly since the implementation of coeducation, and it seems to us that the small savings that could be realized by dropping an intercollegiate team would be out-weighed by the loss to the student body as a whole.

The budget we are recommending does represent a reduction of $20,000 from the Department's original request, however. This will require some additional squeezing down in all areas of their budget but should still leave them enough money to add softball and track to the women's intercollegiate program and to upgrade the schedules for all the women's teams. Given the very substantial reductions that have been implemented in recent years, we think it would be a mistake to cut this budget any further.

Security. We are recommending what is essentially a stand-pat budget for the Security Department. Last year this budget was cut by approximately $50,000 and overnight and weekend patrols were eliminated in almost all academic buildings. Given the very natural concern about crime and personal safety, we do not believe this budget should be reduced any further.

University Health Services. The subcommittee explored the possibility of eliminating bed service in McCosh Infirmary. Our investigation indicated, however, that less than $50,000 would be saved by doing this, and all of our discussions with the staff of the Health Services, the Undergraduate Life Committee, and other students, faculty, and administrators led us to conclude that the savings were not enough to justify such action.

As an alternative to actually eliminating bed service, we are now recommending the following:

-- that the number of beds on the second floor of McCosh Infirmary be reduced from its present 34 to 22-24 and that Counseling Services be moved into the space that is made available. The primary financial benefit from such a move would be that the Nassau Street house currently occupied by Counseling Services could be rented commercially.

-- that the Office of Occupational Health and Safety be moved into the basement of the Infirmary and adjacent areas. If this can be achieved, it will free space on the Forrestal Campus for other income-producing purposes.

-- that the Food Services staff in the Infirmary be reduced by one position and that food be brought over from Wilcox Hall two nights a week.

We do not believe that these actions will have a major impact on the ability of the various Health Services units to respond effectively to the needs of their users. They will, however, enable us to consolidate some of these activities and to make available space that can be used to generate new income for the University. All of these actions are still being explored, but we now believe that, after making a modest capital outlay to accomplish the physical moves, we can expect net savings in the $40,000-$50,000 range.

8. Administrative and Supporting Services. Another subcommittee reviewed administrative and supporting services, which we defined to include general and academic administration, departmental administration, faculty and staff housing, and the non-income-producing activities of Physical Planning and Facilities, primarily the operation and maintenance of the Physical Plant. In conducting this review the subcommittee relied heavily on the extensive work that was done by last year's Priorities Committee. As the table shown in Appendix D indicates, the budgets for these areas (adding in Dormitory and Food Services, Security, and the savings from the new telephone system) were reduced by more than $1.7 million as a result of recommendations made by that Committee.

General and Academic Administration. By academic administration we mean all those offices in the central administration which are devoted primarily to academic or student-related matters, such as the Office of the Provost, the Office of the Dean of the College, the Admission Office, and the University Health Services. General administration, on the other hand, consists mainly of the more business-oriented offices of the University, such as the Controller's Office, the Development Office (fund-raising), and the Personnel Office. (A complete list of the offices and departments which make up general and academic administration is included as Appendix E of this report.)

The Committee is recommending that the budgets for these offices be cut by a total of $75,000 for next year. As Appendix D shows, this reduction comes on top of a cut of approximately $660,000, including 26 positions, that has already been implemented as a result of recommendations made by last year's Committee. We agree with the basic philosophy that the first place one should look for cuts in a time of financial stringency is administrative and supporting services. Clearly the central mission of the University is educational and the academic core must be preserved. At the same time, a certain minimum level of administration is essential if the University is to operate at all effectively (and, increasingly, if it is to comply with federal regulations and reporting requirements). We believe that the administration is already quite lean. Five years ago when the University faced a similar budget crisis, the Priorities Committee recommended the elimination of almost 100 positions; about 80 of those positions came from administrative and supporting services. Last year's Committee responded in the same manner. Appendix D shows that more than 33% of the almost two million dollars that was cut out of the base of operations last year came from general and academic administration alone. We believe that some additional savings can be achieved -- the $75,000 we are recommending -- but we are convinced that further cuts would seriously impair the ability of the administration to serve the various constituencies of the University effectively.

We believe, however, that the $75,000 saving being recommended is achievable, although not without a certain amount of risk, and that further savings might be achieved in FY78. These savings would be accomplished by reducing slightly our insurance coverage, mainly through a more liberal use of deductibles; by consolidating the ways in which we contact and communicate with outside groups in the government and business communities; and by a number of other smaller reductions in staff and operating expenses. None of these cuts will be easy, but they are probably no more painful than the cuts we are recommending in other areas.

Departmental Administration. Departmental administration includes all the administrative and supporting staff and operating expenses of the academic departments and programs which are paid for out of general funds. This covers everything from laboratory supplies purchased with general funds to telephone bills to departmental secretaries. It does not include the salaries of the faculty members of those departments or anybody else who is paid for teaching (including graduate student Assistants in Instruction) nor does it include any expenditures out of sponsored research monies or departmental restricted funds.

Departmental administration is the one major area of the budget that has not been systematically reviewed by any previous Priorities Committee. These expenses more than doubled between FY67 and FY74, rising to about four million dollars by FY74. This amounts to an annual rate of growth of more than 10% at a time when many other areas of the budget were being cut. Over the same period, expenditures within the academic departments directly related to instruction and research increased by only 40%. Looking at such comparisons, last year's Committee concluded that an extensive review of departmental administration was clearly in order.

That review was conducted over the course of the past year by the Dean of the Faculty and the Treasurer of the University. In addition to trying to reduce the general level of expenditures in this area, Dean Lemonick and Mr. Schafer attempted to find a more equitable distribution of funds among departments by relating these budgets more closely to the instructional and research loads of the departments. They also tried to set up stronger incentives for departments to save money and gave the departments more flexibility in deciding how they want to spend this money.

We believe that this review was overdue, and we generally agree with the way it was conducted. We urge Dean Lemonick and Mr. Schafer to continue this effort. As a result of their review, the total budget for departmental administration for FY77 has been reduced to a level about $400,000 below what it otherwise would have been. We realize that these cuts are causing real problems for some departments, but we believe that they are necessary and consistent with actions being recommended in other areas of the budget.

Faculty and Staff Housing. For faculty and staff rental housing we are recommending a general 8% increase in rents. As in married graduate student housing, this increase is smaller than the increases of the last few years but will still reduce the operating deficits of these units somewhat. We feel that this is an appropriate change given the rate at which rents have increased in recent years. In fact, for some of the larger units there is already a problem with vacancies. There are several possible explanations for this phenomenon (a trend toward smaller families, the increasing attractiveness of owning rather than renting, especially with the recently liberalized University mortgage plan, etc.), but at least part of it is almost certainly attributable to the high rents. A typical Broadmead house, for example, currently rents for about $550 a month and the tenant has to pay for his or her own utilities.

In order to deal with this problem, we recommend that the rents in the Broadmead houses not be increased at all next year and that the other units where vacancy problems exist (principally the single-family homes and other large units) be increased less than the general 8% rate proposed above. This does not mean that the rents for Hibben-Magie, Stanworth, and all the other units with more normal vacancy rates will be increased more than 8%. Indeed, we expect that the improvement in the vacancy situation will generate enough additional revenue to more than offset the income foregone by not raising rents a full 8%. This will enable us to keep the increases at 8% in all other units.

We suspect that it will take two or three years of smaller increases for these units before the vacancy rate can be brought down to a more normal level. We think this should be done, and we have in fact built this into the Provisional Plan.

Physical Planning and Facilities. This budget includes all the expenses of operating and maintaining the University's physical plant, including almost all of the energy costs. Last year's Priorities Committee recommended a reduction of approximately $510,000 in that budget and those cuts have already been implemented. Many of them are noticeable to even the most casual observer -- it takes longer to get minor repair work done, the grounds do not receive as much attention as before, etc. The University has been very careful, however, not to eliminate any of the really essential maintenance or to allow the physical plant to deteriorate in any structural way. Our Committee agrees with this policy and thinks it would be a mistake to look for false economies of this sort. We also believe that further cuts in the physical plant budget would push us beyond that point. As a result, we are not recommending any further reductions in this budget.

There are some savings which might be achieved in the energy area, however. Last year a number of capital projects were undertaken to improve the efficiency of the physical plant. These improvements, along with the ongoing energy conservation program, have already resulted in substantial savings. Studies are now being conducted on the feasibility (both technical and economic) of making further changes in the way we provide heat, electricity, and air conditioning to campus buildings. We expect that those studies will be done in time to incorporate the results into the capital budget we will be reviewing in the spring. In the meantime, we have built an estimate of the potential savings into the Provisional Plan for FY 78 and beyond (an amount equal to 10% of normal fuel costs and 2% of electricity costs). It should be recognized, however, that with the kind of physical plant Princeton has (especially its age) there will always be a certain amount of inefficiency in our energy usage. As frustrating as it may be, it is probably inevitable that some areas of many buildings will be too hot while others are too cold. The cost of correcting this situation is so high in many cases that, even with energy costs rising at their current rates, it simply does not make economic sense to undertake those expenditures.

9. Salary Policy. The Committee recommends that roughly three million dollars be allocated for salary increases and related personnel benefits for those employees supported by general funds. Significant progress has been made on the salary front over the last year or two, and we believe that this effort must be continued. The salary pool we are recommending, while smaller than last year's truly extraordinary allocation and clearly less than we would like to provide this year, is one of the largest in the history of the University. Despite the very serious financial problems the University faces, we feel strongly that we must continue our efforts in this area. A university is heavily dependent on the quality and commitment of its faculty and staff. If Princeton is to continue to attract people of the highest quality for all its faculty and staff positions and, at the same time, maintain the morale of people already here, it must assign a high priority to the compensation of its employees. We believe that the salary allocation being recommended here reflects that sense of priorities.

The Dean of the Faculty and the Vice President for Administrative Affairs have discussed with the Priorities Committee the principles for distributing this pool among various staff categories. They propose to take account of several factors in ways that the Priorities Committee agrees are sound. First, in all areas of the University except those where the work is highly standardized, the amount of individual salary increases should be

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based on merit. Second, the University must respond to competitive pressures. For some groups of faculty and staff, our salaries compare favorably with those of competing employers. In others, they still lag behind somewhat. Where this is true, increases must be larger than average. Third, we must always seek to achieve equity in the sense of equal pay for equal work, while recognizing that such equity is not always easily defined. Finally, in times of inflation most employees should receive at least some increase to help them keep up with the cost of living; this consideration is particularly important for those whose pay is nearer the lower end of the salary scale. However, adequate recognition of the first three of our principles and the limitations on the size of the total salary pool will not allow all employees to have salary increases that fully compensate them for the rise in living costs. Despite the very substantial allocation being recommended for salary increases, the University, like employers in many other sectors of the economy, is simply not in a position to guarantee its employees immunity from the effects of inflation.

IV. THE PROVISIONAL PLAN

Because of the long term nature of the University's commitment to individual programs -- and to individual people -- it is important to look more than one year ahead in making recommendations about the budget. The Provisional Plan, a projection of the University budget four years into the future, is the principal tool the Priorities Committee uses to do this kind of long-range planning. We think such planning is especially important this year because the budget we are recommending for 1976-77 projects a deficit of $237,000. While a deficit of this magnitude might be acceptable for FY77 (1976-77), the Committee has held as one of its major goals the achieving of a balanced budget for FY78 and the years beyond that. In addition to our specific recommendations for the FY77 budget, therefore, we describe in this chapter a specific set of actions for the following years which are based on those recommendations and which would achieve a balanced budget for FY78 and beyond.

It is important to emphasize, however, that the Provisional Plan represents only one possible set of actions which might be taken in future years. The Plan is certainly not meant to be a fixed blueprint for financial stability which is to be followed sedulously in assembling the budget for FY78 and beyond. It is instead an expression of our confidence that the budget can in fact be balanced in FY78 and that the recommendations we are making for FY77 represent significant progress toward that end. The Provisional Plan also indicates the kinds of actions that we believe, based on what we now know about the FY78 budget, will have to be considered next year. Clearly, however, these actions will have to be looked at again next year and evaluated in the light of any changes in the budget that may have taken place in the meantime. By that time the Committee will also be in a better position to evaluate the effects of the actions we are recommending here and, as a result, will be better able to judge the appropriateness of the actions assumed in this year's Provisional Plan.

The Provisional Plan is summarized in the table and explanatory notes included at the end of this chapter. As the table shows, we are expecting a deficit for FY77 (the $237,000 previously discussed) and then what amounts to balanced budgets for FY78, FY79, and FY80. Given the enormous amount of uncertainty inherent in projections of this kind, the relatively small surpluses shown for those three years (less than one-tenth of one percent of the budget) are well within the margin of error. What is important is that the deficit being projected for FY77, which is considerably larger and also somewhat more certain than any of the surpluses that follow, is shown to disappear by FY78.

There are, of course, increases in almost every category of income and expenditure projected over the course of the Provisional Plan and it is not easy to explain in a few sentences why the situation improves as we move into FY78. One important factor, however, is that we have projected substantial savings for FY78 and beyond, over and above those we are recommending for FY77. The Library, general administration, and departmental administration are areas where we believe that further savings can be achieved. As described in the discussion of our specific recommendations, we do not believe that those savings can be realized next year, but we do believe it is appropriate to plan on achieving them in FY78, FY79, and FY80.

The other area where we have assumed that further savings can be achieved is faculty staffing. The Provisional Plan assumes that the size of the faculty on the teaching budget can be reduced by an additional fifteen FTE's in FY78 and FY79, which together with the reduction of ten we are recommending for next year, would result in a total decrease of twenty-five positions from the level currently authorized. When the Deans began their review of academic departments last spring, most people, including the members of the Priorities Committee, assumed that a substantial reduction in the size of the faculty could be achieved only by sharply curtailing or even eliminating entire academic programs or major fields of study. The Deans now believe that a reduction of twenty-five FTE's can be achieved by selective reductions, without actually eliminating programs.

The one possible exception, as they now see it, is a small academic program. Here a substantial expansion seems necessary if this program is to develop the way it should. At this point, however, faced with a need to decrease the overall size of the faculty, the Deans do not know whether it is possible to find the necessary resources. As a result, they believe that consideration should be given to the possibility of suspending the program. The Deans and the relevant faculty committees are studying this situation now and they are expected to bring their recommendations forward later this spring or early next fall. With this possible exception, however, it now appears that a policy of selective reductions in the size of the faculty will have less serious implications for the University's overall educational program than would the elimination of additional academic programs. Again it is important to note that at least some of these twenty-five teaching positions will be picked up by sponsored research contracts (an estimated eight to ten of the total reduction of twenty-five) and that a grant from the Mellon Foundation will permit four new appointments in the Humanities.

The Provisional Plan assumes an increase in tuition, graduate and undergraduate, of $400 each year through FY80. It also assumes that undergraduate room and board rates will increase by 6% each year. The total increase in undergraduate charges, therefore, would be just over $500 in each of these years if this Plan were followed. In addition, however, the Plan does project for these years a continued commitment to the student aid policies proposed for FY77; it assumes that additional scholarship funds will be provided in sufficient amounts to assure that all undergraduates who are admitted to Princeton will receive the financial aid they need to come here.

The Provisional Plan also assumes that over the three-year period, FY78 - FY80, faculty and staff salaries will increase by only a total of two percentage points more than the expected rate of inflation.

The Committee puts forth this Provisional Plan with feelings of real unhappiness about some of its implications and risks. We are concerned about the effects of raising student charges by as much the Plan assumes on our continued ability to attract the ablest students from diverse backgrounds. We feel that there are risks that the further reductions in the size of the faculty proposed for FY78 and FY79 might begin to erode the academic strength of the University and the breadth of its curriculum. We are concerned that the amounts projected for salary increases might not be sufficient to enable us to attract and retain the very best people for faculty and staff positions. We also believe that additional resources must be found to support the research activities of the faculty; for the second year in a row the Committee has had to recommend that action be deferred on two very constructive proposals brought forward by the University Research Board which attempt to do just that. In fact, we think that budgets are very lean for every activity of the University that we have reviewed and we believe that further reductions should be made only very carefully.

We are concerned as well about the effects of the reductions we are recommending for FY77, but it is our sense as a group that those actions will not result in any serious erosion of the basic strength of the University. We are less confident about the actions contemplated in the Provisional Plan, however, and we want to make our disquiet quite clear. If it appears that further large budget cuts are necessary after FY77 -- or if the actions we are recommending for FY77 have more serious consequences than we currently foresee -- we believe that the University should examine, in a much more detailed manner than we were able to do this fall, some of the basic premises under which it operates. Before once again putting the University through the same kind of intensive budget review that we have experienced over the last year and a half, we believe that we should reexamine the fundamental nature of the educational process at Princeton. We might, for example, have to look again at the preceptorial and seminar system of teaching, the emphasis on independent work for undergraduates, the interrelationships between graduate and undergraduate education (and between both of those and research), and the extent of our commitment to student aid.

Even before that, however, we believe that the effort to increase the amount of support the University receives from all its traditional sources should be continued and even intensified. We believe that the Federal Government in particular should be playing a larger role in the support of higher education, especially in the areas of student aid, both graduate and undergraduate, and basic research; we urge President Bowen and other representatives of the University to press this issue in cooperation with other universities. We also urge the responsible University officials to explore ways of encouraging more faculty members to assist in this effort and, in particular, to find additional sponsored research funds, especially in areas where we have not had much sponsored research before. In addition, we think that entirely new sources of revenue must be found. In our opinion, the development of the Events Office (which generates income by leasing University facilities to outside non-profit organizations when they are not otherwise being used) is a constructive step in this direction. We are also pleased to note that the Princeton Forrestal Center is expected to begin generating income for the University by FY79.

Finally, we think that if the financial situation fails to improve over the next few years, consideration should be given by the appropriate groups -- particularly the Trustees who have a special responsibility for weighing the needs of the present against the needs of the future -- to whether the earnings available from the endowment can be increased. We realize that spending a larger portion of the total return on the endowment today means that there will be less available to be spent in future years. We believe strongly that we have an obligation to provide future generations of Princetonians with the same high-quality education that we are providing today. In order to do that, we must preserve the financial strength of the University, and in particular, maintain the real purchasing power of endowment income. We do not believe therefore, that a change in spending policy represents a simple, cost-free answer to our financial troubles. At the same time, we also feel a very strong obligation to preserve the intellectual and educational base of the University for future generations, and we are concerned that the kinds of actions contemplated in the Provisional Plan might begin to erode that base. Looking at the proposed budget for FY77, we hope that the actions we are recommending there will enable us to preserve both the educational quality of the University and the purchasing power of the endowment. The University would have to make some very serious choices, however, if we ever reached the point where one or both of those principles had to be seriously compromised.

The Priorities Committee has not considered at any length how the University might respond in such circumstances because, in our opinion, they have not yet arisen. Indeed, we hope that the University will never have to make choices of this kind, and that both educational and financial assets can be preserved. If we should ever reach such a point, however, this Committee feels strongly that all major options would need to be explored thoroughly. These options include fundamental changes both in the educational process and in the management of financial resources.

Provisional Plan: Operating Budgets
FY77 through FY80
(dollars in thousands)

	FY77	FY78	FY79	FY80
Income	126 243	134 544	142 066	149 898
Expense	126 480	134 460	142 023	149 862
Surplus or (deficit)	(237)	84	43	36

Principal Assumptions Underlying Budget Projections for FY78, FY79, and FY80

General Note

In predicting income over the forecast period, restricted endowment and gift income have been matched against the corresponding expenditures in all cases in which the spending in fact determines the amount of income actually utilized.

Income

1. Endowment
    a. Additions are made to principal of $6 million in FY77, $7 million in FY78, and $7 million in FY79, the income from three-quarters of which is used to relieve general funds in subsequent years.
    b. Income per unit in the investment pool increases 5% each year.
2. Tuition
    a. Undergraduate enrollment remains approximately level through FY80.

b. Graduate student enrollment remains approximately level through FY80.

c. Tuition increases $400 per year for both graduate and undergraduate students.

3. Contracts and Grants for Sponsored Projects

Excluding the Plasma Physics Laboratory (PPL), sponsored project direct costs increase by $600 thousand in FY78, $500 thousand in FY79 and FY80. Associated indirect cost recoveries increase by approximately $200 thousand per year. PPL non-government support increases by approximately $50 thousand per year. PPL government direct support increases by approximately $1 million per year. Indirect recoveries increase with growth and with general inflation and salary pool increases.

4. Annual Giving

Increases by 5% each year.

5. Other Gifts and Grants

a. Most current major term grants (or the equivalent) are replaced through FY80.

b. New gifts, three-quarters of which are assumed to relieve general funds, are projected to increase by $50 thousand each year.

6. Auxiliary Activities

a. Athletics income increases by approximately 3.5% per year.

b. Rental income from Faculty and Staff housing increases by approximately 7% per year, with differential rates for units with vacancy problems.

c. Rental income from Married Student Housing increases by 7% per year.

d. Commercial property income increases in accordance with the terms of individual leases. Beginning in FY79 and continuing in FY80, the University begins to receive income from the development of the Princeton Forrestal Center.

e. Undergraduate room and board charges increase approximately 6% per year.

f. Graduate College charges increase approximately 10% per year for FY78 and FY79, and approximately 7% for FY80.

g. Non-contract food prices increase 10% per year.

7. Service Departments

a. Computer Center volume from all sources remains constant at FY77 levels with income increasing only as rates increase. Rates are projected to remain level in FY78 and increase by 6% per year in FY79 and FY80.

b. Other service department income increases in line with general inflation and salary increases.

Expenditures

1. Instructional Budget

a. The number of faculty charged to the teaching budget decreases by 10 in FY78, another 5 in FY79, and then remains constant.

b. The number of Assistants in Instruction remains constant.

2. Other Expenses of Academic Departments

a. Sponsored research increases $600 thousand in FY78, $500 thousand in FY79 and FY80.

b. The number of non-faculty personnel on general funds remains constant at the level reached in accordance with budget allowances for FY76.

c. Operating expenses increase with general inflation from the level reached in accordance with the budget allowances for FY76.

3. Graduate Fellowships

These expenditures increase as tuition increases.

a. The number of students supported from government and other outside sources remains approximately constant through FY80.

b. The number of students supported on University fellowships increases slightly.

4. Undergraduate Student Aid

These expenditures increase as tuition, room and board, and other expenses increase. Outside support of scholarships increases slightly each year. Self-help expectations are as follows:

   a. Loan expectation increases $50 per year.

   b. Income from employment during the academic year increases $50 per year, as a result of wage rate increases.

   c. Summer job earnings increase $50 per year, as a result of wage rate increases.

5. Library

   a. Funds for acquisitions increase by 9% per year.

   b. The number of personnel increases approximately 1% in FY78, and then remains constant in FY79 and FY80.

   c. Operating expenses increase by 7% per year.

   d. Savings targets are achieved: $130 thousand in FY78, $190 thousand in FY79, and $250 thousand in FY80 (amounts are cumulative).

6. Computer Center

   a. The number of personnel remains constant.

   b. Annual expenses increase approximately 6% per year.

   c. Long term expenses decrease by approximately $300 thousand in FY78 when the 360-91 is fully amortized.

7. Academic and General Administration, Athletics, Security, and Other University Services

   a. The number of personnel remains constant.

   b. Operating expenses increase by 6% per year.

8. Physical Planning and Facilities

   a. Service functions are maintained at minimum levels for preservation of plant.

   b. The price of natural gas increases 12% per year.

c. The prices of fuel oil and electricity increase 6% per year.

d. Taxes increase approximately 7% per year.

e. The costs of other materials, supplies, and purchased services increase 8% per year.

f. Other operating costs increase 6% per year.

g. The number of personnel remains approximately constant.

h. In addition to a continued conservation program, annual energy savings from new capital investments are expected to amount to 10% of normal fuel consumption and 2% of normal electricity consumption.

9. Dormitory and Food Services

a. Food costs increase 6% per year.

b. Other operating expenses increase 6% per year.

c. The number of personnel remains constant.

10. Salary Increases

Total pool for increases of 6 1/2% in FY78 and FY79, and 7% in FY80. Amount covers General Fund salaries and benefits only.

PRINCETON UNIVERSITY

Operating Budget: Income
(in thousands of dollars)

	1974-75 Actual (1)	1975-76 Current (2)	1976-77 Projection (3)	Difference (3) - (2) (4)
1. Endowment	16 754	18 224	18 947	+723
2. Student Fees:				
a. Undergraduate Tuition	14 982	16 969	18 619	+1 650
b. Graduate Tuition	4 824	5 324	5 918	+594
c. Other	344	400	400	--
Subtotal	20 150	22 693	24 937	+2 244
3. Gifts & Grants (non-gov't):				
a. Sponsored Projects	1 860	2 029	2 195	+166
b. Other	7 397	7 072	7 240	+168
Subtotal	9 257	9 101	9 435	+334
4. Federal & State Government:				
a. Sponsored Projects	37 805	43 967	47 316	+3 349
b. Other	1 865	2 131	2 196	+65
Subtotal	39 670	46 098	49 512	+3 414
5. Auxiliary Activities:				
a. Athletics	583	569	580	+11
b. Dorm. & Food Services	8 012	9 193	9 728	+535
c. Faculty & Staff Housing	1 861	2 055	2 224	+169
d. Married Student Housing	549	642	695	+53
e. Commercial Properties	1 071	1 040	1 060	+20
Subtotal	12 076	13 499	14 287	+788
6. Service Departments				
a. Computer Center	2 443	2 956	3 234	+278
b. Other	1 841	2 339	2 626	+287
Subtotal	4 284	5 295	5 860	+565
7. Other Income	3 351	3 411	3 265	-146
GRAND TOTAL	105 542	118 321	126 243	+7 922
Summary of Sponsored Projects				
a. Direct Costs	31 446	36 271	38 850	+2 579
b. Indirect Cost Reimbursements	8 219	9 725	10 661	+936
Total*	39 665	45 996	49 511	+3 515

* Sum of lines 3a and 4a.

APPENDIX A-2

PRINCETON UNIVERSITY

Operating Budget: Expenditures
(in thousands of dollars)

	1974-75 Actual (1)	1975-76 Current (2)	1976-77 Projection (3)	Difference (3) - (2) (4)
1. Academic Departments:				
a. Instructional Costs				
1. Faculty, acad. year	13 589	14 120	13 908	-212
2. Teaching asst. stipends	825	787	792	+5
3. Teaching asst. tuitions	802	814	912	+98
b. Other salaries, expenses and benefits	18 049	20 036	21 095	+1 059
c. Graduate Fellowships				
1. Univ. Fellowships*	2 017	2 148	2 497	+349
2. Other Fellowships	1 537	1 621	1 667	+46
Subtotal	36 819	39 526	40 871	+1 345
2. Special Academic Programs	22 986	27 925	29 634	+1 709
3. Undergraduate Scholarships	3 441	4 150	4 558	+408
4. Other Student Aid and Miscellaneous Fellowships	496	645	645	--
5. Central University Services:				
a. Library	5 117	5 443	5 628	+185
b. Computer Center	2 352	2 674	2 661	-13
c. Security	1 262	1 489	1 472	-17
d. Other	893	1 039	1 075	+36
Subtotal	9 624	10 645	10 836	+191
6. Administration:				
a. Academic Administration	4 090	4 387	4 427	+40
b. General Administration	6 943	7 018	7 148	+130
Subtotal	11 033	11 405	11 575	+170
7. Physical Planning & Facilities	12 701	15 141	15 341	+200
8. Athletics	1 905	1 818	1 857	+39
9. Dormitory & Food Services	5 065	5 119	5 271	+152
10. Transfers to Reserves	2 491	2 553	2 669	+116
11. Salary Increases (including benefits)	--	--	3 023	+3 023
12. Allowance for Contingencies	--	100	200	+100
GRAND TOTAL	106 561	119 027	126 480	+7 453
13. Estimated Income	105 542	118 321	126 243	
14. Surplus or (deficit)	(1 019)	(706)	(237)	

* Endowment and General Funds.

Notes to Summary Tables

GENERAL NOTE: Some of the lines of these summary tables have been discussed in detail in the report proper, and no attempt will be made here to summarize information which appears elsewhere.

Income

1. Endowment. The increase here is mainly attributable to a modest increase in the income per unit. Also, the figures reflect recent and projected new additions to the endowment.

2. Other Student Fees. The income from other student fees (principally application fees) is expected to remain constant.

3. Gifts and Grants (non-government). The principal increase in other gifts and grants is expected higher receipts from the Annual Giving Campaign.

4. Federal and State Government. Approximately two-thirds of the increase projected for sponsored projects is for the Plasma Physics Laboratory. The increase in other government support is mainly for student aid, particularly graduate student fellowships.

5. Auxiliary Activities. Most of these activities are discussed in detail in the report. Income from commercial properties is based on the terms of individual leases.

6. Service Departments. This line includes income from computer operations, machine shops, printing and duplicating services. The projected increase in income from the newly established Events Office accounts for the majority of the increase in the "Other" category.

7. Other Income. This line consists mainly of income from the investment of current funds. Lower interest rates and diminished receipts from the stock lending program account for the decrease.

Expenditures

1. Academic Departments. The increase in other salaries, expenses, and benefits is due to a higher estimated level of sponsored research, and to inflationary increases in general operating expenses.

2. Special Academic Programs. Increase is primarily for the Plasma Physics Laboratory.

4. Other Student Aid and Miscellaneous Fellowships. This line includes miscellaneous items (prizes, post-doctoral fellowships and the like). None of these items involve general funds.

5. Central University Services. The "other" category here includes the machine shops, stockrooms, and occupational health and safety.

10. Transfers to Reserves. This is a formula calculation based on a five-year moving average of expenditures from these funds in prior years.

APPENDIX B

Princeton University OFFICE OF THE PROVOST
3 NASSAU HALL
PRINCETON, NEW JERSEY 08540

October 1, 1975

In order to improve communication between the Priorities Committee and the wider University community, the Committee has voted to take the following actions:

(1) Publish the names of Committee members in The Daily Princetonian and the Princeton Weekly Bulletin.

(2) Publish the schedule of Committee meetings and the topics to be discussed.

(3) Hold several (perhaps three) open meetings during the fall. These meetings will be held in the evening and all members of the University community will be invited. The main objective will be to allow members of the community to express their views on budget priorities (either overall budget priorities or the needs of specific areas) to the Committee, but they can also be used to discuss matters of general budgetary concern. In order to keep the meetings manageable, we will try to limit the discussion to predesignated areas, e.g. the general area of student life (the dining and dormitory system, athletics, etc.).

(4) Provide a general summary of Committee meetings for The Daily Princetonian and the Princeton Weekly Bulletin.

(5) Make progress reports to the CPUC, in addition to the final report in January.

(6) Provide (within the next few weeks) an overall summary of the University's financial situation, including the summary tables describing the budget for 1975-76.

(7) Encourage two-part submissions from administrators and other people providing information to the Committee. The first part should include all general information that does not involve recommendations or decisions which have yet to be made. This part would normally be released. The second

part should include only that information which must remain confidential, such as specific recommendations about income and expenses, the ordering of priorities within a department, etc. (No material will be released without the consent of the person preparing it; however, if the Committee feels certain information should be released and the administrator in charge elects to include that information only in the confidential part of his or her presentation, the Provost will be asked to present the Committee's views to that person and try to obtain his or her permission to release the information in question.)

(8) Include more detailed background data in the final Committee report.

APPENDIX C

Princeton University: DEPARTMENT - Office of the Provost

To Heads of Departments and Offices

DATE September 17, 1975

SUBJECT Budgeting for 1976-77

FROM Albert Rees

Albert Rees

INTER-OFFICE CORRESPONDENCE

As most of you know, at about this time of year the Provost normally provides a set of "budget guidelines" for the following year. Traditionally these guidelines have included some indication of what kinds of staff increases would be approved and how much operating expenses should be increased to compensate for price increases. This year, however, these guidelines do not need to be so specific. On the personnel side it is already clear that we will not be able to approve any increases at all, except in very extraordinary cases; and, indeed, I fully expect that the size of both the faculty and the non-academic staff will have to be reduced even below their current levels. I would ask you, therefore, to review your staffing needs to see if any existing vacancies can be left unfilled or if further reductions can be made. You can, of course, request additional staff if you feel it is absolutely essential. Requests for new faculty positions should be submitted to Dean Lemonick on the budget forms that will be sent to you in the next few days. As far as non-faculty positions are concerned, you should prepare whatever supporting material you think appropriate and submit it in a separate memorandum to Assistant Controller Christopher McCrudden. Mr. McCrudden will be sending out a memo shortly describing in detail exactly what information is required. I should caution you, however, that even very worthy requests may have to be turned down for lack of funds.

Mr. McCrudden is also the person to talk to about the budgets for other operating expenses. For academic departments and programs the budgets for the current year are being reviewed right now by Dean Lemonick and University Treasurer Carl Schafer, together with Dick Spies of my office. The results of that review will be communicated to you shortly and any changes proposed for next year should be based on this new budget. As far as the non-academic departments and offices are concerned, your budgets were all reviewed last year and you should base your request for next year on this year's approved budget. For both academic and non-academic departments, increases should be requested only if you anticipate actual changes in the level of activity within your department. You should not adjust these budgets for inflation. This year, for the first time, any adjustments for inflation will be made centrally, to the extent that the financial condition of the University permits.

Let me now turn briefly to the University's overall financial situation. As you know, the Priorities Committee was unable to put together a balanced budget for the current year. The Committee did, however, recommend cuts of about $2 million in the various budgets they reviewed, including the elimination of about 60 full-time positions. (Most of those reductions were reflected in the Committee's January report, but $200,000 of the savings and ten of the positions represent actions taken in the spring, all in the area of general and academic administration.) Without going into too much detail, let me give you a rough breakdown of the nearly 60 positions cut:

- 8 faculty positions.
- 24 positions in general and academic administration. These savings have been achieved in a wide variety of offices: the Controller's Office, Administrative Services and Data Processing, Personnel, the various fund-raising activities, Health Services, the offices of the senior Deans and the Financial Vice President, my own office, the President's Office, the Office of Communications, Administrative Services, Mail Services, and the Office of the Secretary and University Counsel.
- 16 positions in the various departments which report to the Vice President for Facilities - the Physical Plant, Dormitories and Food Services, and the Housing Office.
- Finally, 5 positions in Athletics and 5 building guards - though I would hasten to add that we have not made any curtailments in security costs relating to personal safety.

The Committee also formed three subcommittees in order to explore more fully the various options for getting the budget back into balance. Those subcommittees worked through the spring last year and I expect them to be continued in some form this year as well. The first one, chaired by Dean Lemonick, has been reviewing academic departments and programs. As part of that review the senior academic Deans and the Provost have met with several department chairpersons to talk about faculty staffing. The Dean of the Faculty will review staffing levels with this group and then make recommendations on the overall size of the faculty to the Priorities Committee's subcommittee (and ultimately to the full Committee).

The second subcommittee, chaired first by Provost Hackney and now by me, has been reviewing student services of various kinds. We have defined student services quite broadly to include all those activities supported out of general funds which contribute to the non-academic lives of students, including the dormitories, dining halls and other social facilities, the Department of Athletics and Physical Education, Health Services, Security, and so on. The budgets for all these activities will be reviewed by this Priorities Committee's subcommittee.

The third subcommittee, chaired by Vice President for Administrative Affairs Anthony J. Maruca, has been reviewing general and academic administration and other supporting services. Last spring this group recommended additional cuts of more than $200, 000 in the central administration (on top of the nearly $400, 000 in cuts recommended by the Priorities Committee last fall), and they will be reviewing the budgets of these departments again this fall.

Finally, let me say just a word about our updated budget projection. A number of favorable developments have occurred since the Priorities Committee issued its report in January, but despite the budget reductions adopted last year, we are still projecting a deficit in the neighborhood of three-quarters of a million dollars for the current year, and even larger deficits for next year and the years beyond. Improvements on the price front (particularly for food and fuel where price increases so far have been less severe than we had expected) have been largely offset by a decline in our estimate of endowment earnings and other income items. I do not want to burden you by going into detail about the reasons for these developments in this memorandum, but I do want to emphasize that our financial problems are still severe and lasting ones. Our projections indicate that, even with some fairly stringent assumptions about reductions in staff and other expenses, the deficit would still be very large in 1976-77 if nothing further were done about it. Needless to say, something must -- and will -- be done to prevent that from happening. I would ask you to keep this in mind as you prepare your budget requests and to do your best to help us in this essential task.

AR/eb

APPENDIX D

Summary of Reductions in the Base of Operations (1974-75)*

	Approximate FTE Positions	Dollar Savings (thousands)
Faculty	8.0	140.0
Academic Departments and Programs (supporting staff and operating expenses only)	0.5	107.2
Security and Other Central University Services	5.5	56.7
Academic Administration	6.5	114.8
General Administration	19.5	545.4
Physical Planning and Facilities	5.0	511.1
Dormitories and Food Services	11.0	321.0
Athletics	5.0	104.3
Savings From New Telephone System**	----	75.0
Total	61.0	1975.4

*This list summarizes all the actual reductions in the base made as a result of the review conducted by the 1974-75 Priorities Committee. Most of these reductions were cited in last January's report, but some were implemented after the Committee's spring review. The list does not count any of the requests for new positions that were denied nor does it net out the new positions authorized for the Library. This year's Committee relied heavily on this list as a starting point for its review, especially for administrative and supporting services.

**The new long distance dialing system is expected to result in savings of roughly $75,000. Those savings will show up in the budgets of almost every department or office, both academic and administrative.

APPENDIX E

ADMINISTRATIVE AND SUPPORTING DEPARTMENTS

I. Academic Administration

- General
  - Provost's Office
  - Office of the Dean of the Faculty
  - Office of the Dean of the Graduate School
  - Registrar's Office
  - University Research Board
  - Office of Research and Project Administration
  - Office of the Dean of the Chapel
  - Director of Chapel Music
  - Public Lectures
  - Miscellaneous Expenses

- Undergraduate College
  - Office of the Dean of the College
  - Admission Office
  - Undergraduate Financial Aid Office
  - Board of Advisers
  - Career Services
  - Special Educational Programs

- Undergraduate Student Life
  - Office of the Dean of Student Affairs
  - University Health Services
  - Counseling Services

II. General Administration

- General
  - Office of the President
  - Board of Trustees
  - Office of the Secretary and University Counsel
  - University Archives
  - Safety and Insurance
  - General Expenses

- Financial Affairs
  - Office of the Financial Vice President
  - Office of the Treasurer
  - Controller's Office
  - Events Office

Administrative Affairs
- Office of the Vice President for Administrative Affairs
- Administrative Systems and Data Processing
- Personnel Services
- Administrative Services
- Purchasing Office
- Printing, Mailing, and Alumni Records
- Mail Service
- Telephone Office
- Photoduplication

Fund Raising
- Office of the Vice President for Development
- Annual Giving Office
- Development Office
- Office of the Recording Secretary

Alumni and Public Affairs
- Office of the Vice President for Public Affairs
- Alumni Council
- Office of Communications
- Office of Community and Regional Affairs
- Princeton University Conference
- University Magazine

III. Central University Services

- Library
- Computer Center
- Security
- Occupational Health and Safety
- University Machine Shop
- University Stockroom

IV. Physical Planning and Facilities (including Dormitory and Food Services)

General
- Office of the Vice President for Facilities
- Office of the Associate General Manager
- Physical Planning Office

Physical Plant
- Office of the Director of Physical Plant
- Physical Plant: Main Campus
- Physical Plant: Forrestal Campus
- Physical Plant: Plasma Physics Laboratory

Real Estate and Housing
- Housing Office
- Dormitories
- Married Graduate Student Housing
- Faculty and Staff Housing
- Commercial Properties

Food Services
- Department of Food Services

MINORITY REPORT

Steven Freedman

SUMMARY

1. Princeton University actually has two endowments: a monetary endowment of equities and bonds and an "educational" endowment that can be expressed in terms of Princeton's ability to attract the most talented faculty and student body. Both types of endowment constitute the legacy of a University to its future.

2. The Trustees view their primary responsibility as giving to the next generation at least as much monetary endowment as this one possesses.

3. The Committee has failed in its obligation to weigh the maintenance of the monetary endowment against the preservation of the educational quality of the institution. The maintenance of the monetary endowment should not, on its face, be regarded as superior to the goal of maintaining the other endowment. Had the Committee considered the question, it might well have decided that it is better to pass on quality than to pass on money.

4. Erosions of educational quality are irreversible because a decline in that area represents a decline in the essence of the University with the effect that the attractiveness of the University to Faculty and students will be reduced. As a result, they will not be willing to teach for below-average salaries and pay above-average tuition charges. Spending more resources helps to protect Princeton University's market power, a product of its excellence.

5. The Trustees' policy of spending only interest and dividends from endowment bears no relationship to its supposed goal of maintaining the real value of the portfolio. Nor does the endowment spending rule allow rational transfer of monetary wealth between generations. The amount of endowment growth spent each year to cover operating costs and the amount that is put back into the endowment principal for future generations is a direct function of portfolio mix and does not account for changes in the capital value of the endowment.

6. The concept of "deficit" as applied to Princeton University is a red herring. It is simply a by-product of the Trustees' spending rule. The level of contribution from endowment in the University budget is subjective.

I have not signed the Majority Report because I disagree strongly with several important aspects of the Priorities Committee's approach to budget-making and several of its final recommendations.

My first objection centers on the relationship of the University's endowment-spending policy to the budget-making process. Princeton University actually has two endowments: money endowment of equities and bonds and an endowment whose value can be expressed in terms of Princeton's ability to attract the most talented faculty and student body. The worth of the monetary endowment is clear and quantifiable. It is equal to the value of the University's primary pool of invested funds, which now stands at over $400 million. The components of the second endowment are the levels of faculty salaries, graduate student fellowships, undergraduate tuition and financial aid, the range and quality of Princeton's programs and the quality of academic facilities such as the library and the computer center. Because of the quality of these last components -- academic programs and facilities -- faculty members have been willing in the past to teach at Princeton for lower salaries than they might have drawn elsewhere, and students have been willing to pay more to attend. Should this ever cease to be the case, Princeton would have to pay high-quality faculty more and charge qualified students less; this would result in a high rate of consumption of the monetary endowment.

The Priorities Committee majority view is myopic in that it assumes that the "educational" endowment can be altered without changing the monetary endowment. The two cannot be separated. The erosion of the educational endowment will incur not only academic but substantial financial costs. Princeton will be forced to meet market prices being paid in salaries and student aid by other institutions that do not enjoy the high quality of programs and facilities that Princetonians so. To compete in this way so means to spend from the monetary endowment. At present, Princeton is limiting itself to spending about four percent of its endowment. Therefore, having to pay more to bring good people here would result in increased spending of endowment funds and the possible erosion of the real value of endowment. Thus, it makes no sense for the Committee to recommend the preservation of real endowment wealth at the expense of the failure to protect the educational base.

Furthermore, while a decline in the value of the monetary endowment is reversible because it can be made up by the simple process of the infusion of dollars, a decline in the educational endowment is irreversible. A decline there means a decline in the essential quality of the University with the effect that people will not be willing to incur a greater monetary cost to come here. Princeton, which has been peculiarly attractive in this sense, would suffer monetarily from such a decline more than would most universities. Such a decline, moreover, would directly affect capital gifts to endowment; people give to Princeton because of its academic strengths.

This year's Priorities Committee should be applauded for recognizing for the first time that the trade-offs between the maintenance of the education base and the monetary endowment must be examined in the future. The Committee has finally begun to move in the right direction, but it does not go far enough, and it makes several incorrect assumptions.

Referring to the two goals of maintaining the purchasing power of the endowment and of preserving the "intellectual and educational base of the University for future generations," the majority report concludes that "the University would have to make some very serious choices ... if we ever reached the point where one or both of those principles had to be seriously compromised." To argue as the Committee does, in terms of a fixed threshold at which the educational endowment has suffered irreparably, is unreasoned.

Erosions in educational quality, resulting in the inability of Princeton University to attract the best people, do not happen at any particular time. It cannot be said that five years from now Princeton will suddenly suffer the loss of its ability to attract people; rather, the erosion of educational quality is a continuing process. The Priorities Committee must not view its primary roles as a determination each year of whether we have crossed a fixed trade-off point (as the majority report seems to imply), but must realize that inroads into the quality of Princeton have already been made; that these have a cumulative effect; and that each cut and each foregone opportunity to enhance the University's quality and to innovate will affect the ability of the University to attract human capital in the future.

In the past three years, for instance, Faculty salaries have decreased in real-money terms and the Committee projects that they will barely keep up with the inflation rate over the next four years. This salary policy is already having an adverse effect; each decision in this area must be balanced against the goal of maintaining the real wealth of the endowment. The true danger of failure to use this criterion is that by the time it is very apparent that Princeton has lost its ability to attract the best faculty without paying as much or more than comparable institutions, it will be too late to reverse the trend.

In addition to salaries, the failure to maintain and even to expand programs when such action is warranted will affect the qualities of faculty and students Princeton can attract. For example, linguistics is a rapidly growing discipline to which most other major universities devote an entire department. Rather than improving its Program in Linguistics, the Committee anticipates doing away with it. This represents a substantial loss for Princeton in that the absence of such a department may well affect the University's ability to attract faculty in this field and related areas without paying them as much or more than comparable universities would offer. The absence of such a department and the weakening of others will also affect Princeton's ability to attract the highest-caliber students interested in those fields or interested in a high quality, well-rounded education. And, of course, a change in Princeton's liberal financial aid policy, (a budget item that the majority indicated the Committee may have to examine in the near future) will clearly affect the diversity and quality of the student body. It is not enough to say that a threshold has not been reached. The effects of cuts such as the above are cumulative, and by the time the Committee is able to perceive the decline, the damage will have been irreparably done.

The long-run and short-run trade-offs must be examined at every step. It is clear that the Committee does not perceive accurately the role of the educational base of the institution in protecting the University's market power over faculty and students. The University can only go so far in relying on its tradition of greatness or on its name as drawing cards. This reliance implies a judgment that the monetary endowment is to be considered superior to the "quality" endowment.

The Trustees' goal of passing on as much real monetary wealth is, at first glance, a good one, but it cannot stand alone. It must be balanced against the maintenance of the educational base. In no event should the Trustees take the real wealth of the past and make it larger for the future if this means making inroads into the human capital and other aspects of the "educational" endowment. Such a policy represents excessive prudence and a lack of wise leadership. Many economists have argued in other contexts that given the tendency for real wealth to increase in the future, the "monetary" future will take care of itself. One way in which this is achieved is through unrestricted gifts, which in recent years have averaged over one percent of the market value of the endowment per year. It is, therefore, senseless to accumulate real capital for the future at the expense of an irreversible decline in the educational framework.

It is important to note that the enormity of the Princeton endowment compared to its annual budget is a crucial aspect of this argument. If the endowment were small relative to income, the issue could not be framed in the same way. But the argument gains its relevance because of the opportunities this financial wealth -- an endowment in excess of $400 million -- gives to Princeton University.

In order for Princeton to be a leading institution in the future, it must invest in its ability to attract high-quality talent as a result of its present strengths. By sacrificing the maintenance of the University's educational real wealth to maintain its real monetary wealth, the Trustees would be breaking the cycle, which is the vehicle enabling an outstanding university to maintain its status. If Princeton does not maintain its educational worth, it will be doing little more than trading on its name and its former excellence, a practice that cannot be followed indefinitely and that eventually leads to institutional decline. The Trustees must use the University's economic resources to maintain this excellence.

The Committee accepted the Administration-authored Provisional Plan for fiscal years 1978-80 on its face because it accepted the Trustees predetermined figure for the level of endowment spending and the mandate that the budget be in "balance". The treatment of these constraints as fixed makes the Priorities Committee's budgeting process largely a mockery: the most important decision is made before the Committee enters the picture.

Although perhaps technically valid in accounting circles, the concept of "deficit" as it applies to Princeton University is a red herring. It neglects the economic reality that the size and magnitude of the bottom-line figure of Princeton's operating budget is a direct corollary of the numbers the Trustees have predetermined in any given year as the endowment's contribution. The current investment and spending policy of the Trustees defines the spendable contribution as the income from dividends and interest on the University's primary pool of investment funds, which is today a mix of 78 percent equities and 22 percent high-interest bonds and notes.

Virtually no economist believes that interest and dividends, the formula used by Princeton and very few other institutions, should form the basis of any university's spending rule. Many favor spending formulae based on some total percentage of endowment value regardless of the interest and dividends yield In that event, a budget gap may be closed, if this is consistent with maintaining the educational base of the University, by spending some capital gains.

If Princeton now had a more liberal spending rule, or even had invested several years ago more heavily in bonds to increase its yield, the University could have eliminated all $4.5 million of the "deficits" realized since 1970. This year's "deficit" simply represents a decision by the Board of Trustees to spend only $18,957,000 from the endowment rather than $250,000 more.

The majority contends in its report:

> A larger faculty is possible, but only at the expense of such things as higher tuition and fees or smaller salary increases. One can spend more on the library, or on athletics, but only at the cost of spending less elsewhere.

This is not the whole truth. We have established that the operating budget is not a zero-sum game. Both a larger faculty and stabilized tuition rates are possible if endowment spending policies are altered. A change in this area causing Princeton to spend more than it now does has its costs, but a failure to change its policy is also not without substantial adverse effects. In conclusion, the claim that the failure to cut back a particular program will result in a "deficit" is not in itself grounds on which to recommend serious and significant cuts. Essential elements of university life should not be excised simply because of accounting practices.

The Trustees' spending rule has serious weaknesses. The level of university expenditures from endowment each year is a function of the portfolio mix, which, according to University administrators, is maintained so as to maximize total long-run return. This year, the University's investment managers believe that a 78-22 stock-bond mix achieves that end. But what if next year they believe a 90-10 ratio is optimal. Then the endowment's contribution to the operating budget would not even come close to supporting current programs. Worse still, but for a different reason, is the possibility that 60 percent stocks and 40 percent bonds will provide the optimal long run return. There is, in fact, empirical evidence that they should change the mix; as many prominent economists advocate greater reliance on bonds in endowment portfolios. Under the present rule, the University would, therefore, be prevented from adopting the optimal investment policy if that policy includes heavier investment in bonds.

Another severe drawback of the interest-plus-dividends spending rule is that it distorts any attempt to transfer monetary wealth between future generations in a reasoned manner. The transfer of wealth is not directly a function of budgetary factors, educational factors, or the rate at which the endowment is growing, but is a corollary of the portfolio mix. Complicated trade-offs are totally ignored by the use of an accounting rule that has little relation to reality.

For these reasons, a spending formula independent of the income yield should be adopted by the Board of Trustees. Peter Williamson, a leading authority on endowment income and spending policy agrees:

> For purposes of establishing a policy, it is important to distinguish between income on an endowment and appropriate spending from the endowment. The total productivity of an endowment fund comes in the form of income and appreciation. Appropriate spending is related to the total productivity and not simply to the income or to the appreciation. Some institutions may feel that they are still precluded from spending any more than income yield. But this should not stand in the way of their developing a spending policy and determining what is an appropriate amount to spend. If it turns out that this appropriate amount is less than the income yield, then there is no conflict between appropriate spending and a yield limitation. On the other hand, if it turns out that an appropriate spending level exceeds income yield, the institution will have to decide whether to change its investment strategy in order to increase the yield or whether simply to hold spending below the level that is really appropriate. There may be other ways to deal with the problem, involving stabilization reserves or the use of quasi endowment, but the point is that the development of a spending policy, independent of what the income yield on a fund happens to be, is a trustee responsibility in every college and university.

A related constraint that deters the Trustees from making sound investment decisions is their refusal to count part of capital gains as endowment income. This issue has been hotly debated in academic communities for the past decade, but an apparent consensus has been reached and an overwhelming majority of colleges and universities spends part of its capital gains. The blue-ribbon panel of the Twentieth Century Fund's Task Force on College and University Endowment Policy generally looks upon such a policy favorably. The disadvantage in the failure to consider part of capital gains as income is that another constraint is imposed on the investment managers as they determine the stock-bond mix of the University's portfolio. Trustees might be hesitant to invest more heavily in low-yield growth stocks simply because the returns on them are capital gains rather than interest.

Williamson contends that the formula for the rate of spending should be based on the market value of the endowment fund. The Trustees should select the rate at which the long-run real wealth of the endowment would remain constant -- no erosion and no growth. This number would not be immutable; it should not be accepted by the Priorities Committee as an incontrovertible axiom. Instead, the Committee must balance this against the irreversibility of any adverse effects of cuts into the primary academic, intellectual and non-curricular fabric of Princeton.

In light of the above, how should the procedures by which the University makes its budget be revised? After taking into account the aforementioned modifications, the Trustees should decide upon a rate based on the total endowment and pass this on to the Priorities Committee. The Committee, in turn, must, in the last analysis, determine whether it is desirable to leave the next generation the same "real wealth" in terms of money but decreased "real wealth" in terms of the quality of Princeton University, that is, whether it is more important to maintain the base to which this monetary wealth will presumably be applied. It may be possible, under certain circumstances, to maintain both types of wealth. But, should it appear to the Priorities Committee that in order to "balance" the budget on the Trustees grounds, the primary educational character of Princeton University is being eroded, it must in good conscience recommend not doing so. Moreover, the Trustees must realize the shortsightedness of their view that the University can improve only through the bequeathal to the

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next generation of equal or increased endowment levels, and not by spending enough to ensure it a higher quality faculty, a diverse and high-quality student body, or the maintenance of anything vital to Princeton's academic character.

If the Committee belives that the spending rule that the Trustees have agreed to is inconsistent with maintaining the strengths of Princeton University, it should realize its obligation within its advisory capacity to recommend greater spending. It should be noted that at this time, an increase of only 0.1 percent in the proportion of the endowment counted as spendable income would allow a spending increase of more than $400,000. The Committee should not sacrifice the long-term quality of the University for the sake of one one-thousandth of its wealth. Williamson's recommendation for endowment spending stresses that these numbers should be flexible; he, therefore, recommends a range of spending.

This year's Priorities Committee should have examined the following issues in the aforementioned context:

Salary Pools - The salary increase that the Committee recommends this year and those that it endorses in future years through the Provisional Plan are barely above the inflationary rate. This has been true for several years. Faculty members and other university employees have undergone a long period of no (or modest) improvement in their living standards. Such a policy will lead inevitably to difficulties in attracting and maintaining a good Faculty and quality employees. Princeton cannot survive without a strong faculty. If the Committee believes that such a salary policy will lead to a faculty of lesser quality, then it must engage in the balancing process described earlier. An increase of only 0.2 percent in endowment spending would allow all University Faculty and other employees an approximately one percent salary increase.

Undergraduate Fees and Financial Aid - According to the Provisional Plan approved by the majority, it will cost about $8750 to send a student to Princeton in 1980 ($7853 in tuition, room and board, and about $900 in personal expenses). In the course of its deliberations, the Committee learned from the Financial Aid Office that over the past few years about 12 students per year have left Princeton for financial reasons. We can only expect this number to increase as tuition, room and board are projected to increase by an average of $515 over the next four years. There is also the problem of attracting a diverse, high-caliber student body in the face of such high fees. Indeed, the majority report recognizes that to "retain our ability to attract undergraduate and graduate students with outstanding talent and promise ... we dare not set our ... tuition too high."

The Committee should expect that sizeable increases in the cost of a Princeton education, even when matched by comparable percentage changes in per capita national income, will produce changes in the composition of Princeton's applicant pool and student body. Prospective students of the Class of 1980 can expect their education to cost almost $9000 annually in their senior year. Students and their families, like most consumers, suffer from a phenomenon known as "money illusion". They are apt to focus much more on the projected changes in the cost of a Princeton education than projected changes in income when making consumption decisions. The impact of money illusion is accentuated both because the year-to-year changes are so sharp in dollar terms and because many high school seniors lack adequate information on the financial aid opportunities at Princeton.

Empirical evidence in this area is scarce. I personally know of potential applicants who have shied away from applying, victims of the phenomenon described above. Several members of the Committee agree that tuition has reached a level that is too high and that it cannot continue to increase at the current pace. The increase in total fees this year over last year is 8.2 percent, 2.2 percent higher than the projected rate of inflation. In the three years considered in the Provisional Plan, the average increase is over 7.7 percent.

A second neglected aspect of the determination of room, board and tuition rates is the distribution of the increase in charges between the three. This issue has not been adequately covered by the majority report. After adjusting for financial aid, a $25 increase in undergraduate tuition nets the University $69,500 while a $25 increase in room nets $67,000 and a $25 increase in board nets $30,000. The board net is so low because the board rate is used in granting financial aid awards whether a student eats in University facilities or not. A financial aid student would get the same award whether he eats at Commons or a club or is independent. Because the net return is so low, and because University dining facilities are running substantially in the black (over $150,000 profit this year), the Priorities Committee should not increase board, or, if it must, only by a very small amount(and only as to smooth the return to a balanced food services budget). By holding the line in this area, the University is bound to attract more students into its dining system, particularly independents who face rapidly rising food costs and club members who find climbing dining fees prohibitive. Because of increasing marginal returns, a greater number of students in the dining system can only be a boon to University finance since the cost per additional student would be only approximately as high as the cost of his food. An increase in board rates, therefore, has two adverse effects: it represents an inequitable subsidy to club members who are on financial aid and it serves as a disincentive to those who might find the dining system financially attractive.

Graduate Student Financing: The Committee has, for the last several years, failed to pay sufficient attention to the plight of the graduate school. Certainly graduate schools everywhere are suffering. Many agree that Princeton's graduate program, in some fields at least, is declining. The Priorities Committee must, as in other areas, weigh this decline against the level of additional endowment spending if thinks is appropriate to support it. This may be the clearest case of a situation in which by saving too much for the future and not spending enough now, the University will have an irrevocably weakened program on which to spend the saved dollars in years ahead.

To reverse this trend, the Committee should, at the outset adopt the following two measures. First, it should increase significantly the "A level" fellowship, the best the graduate school has to offer, which is held by of 1300 students. For the past five years this fellowship has been $2500 plus tuition (during which time price levels have increased over 30 percent). University room and board charges alone for graduate students are recommended to increase by about 10 percent next year. Princeton cannot expect to continue to attract and keep the best graduate students at this support level, especially since virtually every high-quality graduate school offers its best students more. In fact, many professors acknowledge that they have encountered well-qualified students who have turned down Princeton in order to go to another school offering them more money.

Secondly, the Committee should adopt a plan for tuition relief after generals, at least for those who pay their own way prior to them. (These "no-support" students comprise about 10 percent of the graduate student body). Cornell is the only other graduate school in the Ivy League that charges full tuition all four years.

Other areas - Several areas which seem to fall far short of a desirable quality level should be carefully examined by the Priorities Committee. One example is the Counseling Center, where two-week waits are not uncommon.

Two other decisions made by the Priorities Committee regardless of any endowment spending considerations are questionable. It is abominable that the Committee increased the $715 personal expense figure used in calculating financial aid by only 4.9 percent while i allowed for an inflation increase of at least six percent in every other area. The cost of raising this allowance by six percent (to $760) is only $15,000. Students are, if anything, harder hit by inflation than other consumers in that a significant portion of their expenditures are made on books, for which the inflation rate is over ten percent. Furthermore, these students are on financial aid, and they, or their parents, must use a relatively larger part of their income to finance their education in the first place. The Committee's rationale for the 4.9 percent increase was that the Ivy League had set a maximum of $750 for next year. This is undeniably cartel pricing. The Committee should not shirk its responsibility by acceding to the Ivy League Financial Aid Directors' suggested levels unless those figures are best for Princeton.

Secondly, the Committee should have examined carefully the future of the Prospect Association dining facility. Last year the membership of the association was broadened, and facility is now operating at capacity but still running an annual deficit of about $40,000. The Priorities Committee has considered excising this program for several years, but it should wait no longer. Prospect is a luxury Princeton cannot afford.

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As the majority report acknowledged, the issue of openness divided the Committee throughout its deliberations this year. The Committee did not make public a sufficient amount of the material it used in its deliberations. The guidelines upon which the majority agreed were inadequate in this regard, and even they were not adhered to by several administrators who made budget presentations to the Committee. The Committee was remiss in condoning the flagrant disregard of its own guidelines.

PRINCETON UNIVERSITY

REPORT OF THE PRIORITIES COMMITTEE
TO THE PRESIDENT

Recommendations Concerning the Budget for 1977-78

January 10, 1977

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INTRODUCTION

The Priorities Committee is one of the seven charter committees of the Council of the Princeton University Community. As stipulated in the charter of the CPUC, the Committee has sixteen regular members: three administrative officers serving _ex officio_ (the Provost, who serves as chairman of the Committee; the Dean of the Faculty; and the Financial Vice President and Treasurer); six members of the faculty, including at least one from each of the four academic divisions and at least one non-tenured member; four undergraduate students; two graduate students; and one representative of other groups on the Council (the professional Library staff in the case of this year's Committee).

The purpose of the Committee is to advise the President on matters that affect the making of the budget for the succeeding fiscal year and underlie long-range plans for resource allocation. We understand, as should all members of the University community, that the Committee's role is purely advisory and that the weight given by the President and the Board of Trustees to our report depends on the force of the arguments presented there and on the quality of our recommendations. The Committee has neither the time nor the expertise to undertake a detailed line-by-line review of the budget or to involve itself in the day-to-day management of the University, and we gratefully leave those tasks to others. Our role is to make recommendations about the major parameters of the budget that establish, in a broad way, the priorities that govern the use of University resources.

As always, the Committee wishes to express its appreciation to all those members of the University community who participated in the budgetary process. We want especially to thank all those people who prepared material for the Committee or met with us to discuss particular budgets or budgetary issues. The Committee has profited enormously from their expert assistance and, in particular, from their openness and candor in discussing what were often complex and sensitive issues. We want also to thank all those organizations and individuals who shared their opinions and suggestions with us at various stages of this process, either at one of our public meetings or through more informal channels. In an effort to provide more information to the University community and to improve communication between the Priorities Committee and other members of the community, the procedural guidelines adopted by last year's Committee have been modified somewhat. Under our new guidelines almost all the written material presented to the Committee was made available to the public. (Copies of those materials are available in the Reserve Reading Room in Firestone Library.) A copy of those guidelines is included as Appendix B of this report.

The Committee has also benefited from the contributions of those individuals who have met regularly with us, either at the suggestion of the Executive Committee of the CPUC or as stipulated in the charter of the Council: Mr. Henry E. Bessire, Vice President for Development; Mr. A. J. Maruca, Vice President for Administrative Affairs; and Mr. Richard R. Spies, Associate Provost and the Committee's executive secretary. We are also indebted to Mr. Christopher McCrudden and Ms. Donna Nicholson, who shared the duties of recording secretary for the Committee and prepared many of the budget materials used by the Committee, in addition to serving as an invaluable liaison with the Controller's Office.

Finally, we should point out that this report is being submitted with our unanimous support. Although each of us might prefer to see one or more of the specific recommendations changed in some respect, the differences among us are remarkably few; we all endorse the overall set of recommendations described in this report and the general statements of principle and policy used to explain those recommendations.

J.T. Bonner
June Castle '77
John Gager
Michael Goldman
Patricia Halliday GS
Dwight M. Jaffee
Nancy Klath
Robert V. Kohn GS
Aaron Lemonick
Paul M. Lion
Diane Ruble
Carl W. Schafer
Ed Shapiro '78
Michael Watkins '77
Lori Weiner '78
Albert Rees (Chairman)

I. REVIEW OF THE CURRENT FINANCIAL SITUATION

Since last January, the condition of the University's operating budget has continued to improve. At the time of our January 1976 report, we projected the deficit for 1975-76 to be $706,000. In fact, it was $319,000. The budget we recommended for 1976-77, which was adopted by the Trustees, anticipated a deficit of about $250,000. We now expect the budget for this year to be roughly in balance, a year earlier than we had planned, and we propose a budget for next year that will keep it in balance. It is important that the budget stay in balance for several reasons. Deficits, which must be covered by drawing down funds functioning as endowment, reduce the income available from these funds in future years. Moreover, large or persistent deficits may make it much harder to recruit distinguished new members of the faculty, who will want to see good prospects of future support for their scholarly work. Deficits also make it more difficult to attract gifts both for operating and capital purposes; most donors want to support growth and improvement rather than merely paying for what is already being done.

As always, many factors affected the operating budget in both directions during the past year, some adding to the deficit and some reducing it. For the fiscal year 1975-76, the most important single factor reducing the deficit was the magnificent performance of Annual Giving, which on a cash basis raised $700,000 more than the budget estimate. Gifts other than Annual

Giving also increased substantially. A second major factor on the plus side was the increase in indirect cost reimbursements on sponsored research, reflecting both a larger volume of research and faster progress than anticipated toward receiving reimbursement at the full audited rate. Among the unfavorable developments, the most important was the need to add funds to the acquisitions budget of the University Library, which otherwise would have run out of acquisitions funds before the end of the fiscal year.

All of these developments during last year have also affected our estimates for the current year. In addition, this year's budget has been altered by other events. On the favorable side, the most important of these has been an increase in government funds received for scholarships and fellowships. On the negative side, we have experienced unanticipated increases in insurance premiums, and we have made some special wage adjustments for certain employees on the bi-weekly payroll beyond those originally budgeted. Some of these developments are discussed in more detail in connection with our recommendations in Chapter II.

One way of bringing a university budget into balance is to cut expenditures to the point where the quality of education suffers. We do not believe that Princeton's budget has been brought into balance this way. The authorized number of faculty on teaching budget this year is 590, slightly fewer than in the two preceding years, but about the same number as we had in

1973-74, and more than we had in any previous year. The Dean of the Faculty assures us that on balance the quality of the tenured faculty has been enhanced over the past five years despite the loss of some distinguished scholars through resignation, retirement, and death; this statement is, of course, not necessarily true for each field of study considered individually.

The student body remains strong as well. Despite relatively large increases in tuition and other charges in recent years, the number of applicants for admission continues to rise each year at both the graduate and undergraduate levels. From every indication the overall quality of these applicants also continues to rise. Indeed, it appears that the most difficult problem facing Princeton admissions officers today is how to decide which of the many very able candidates should be admitted.

Our Library continues to add about 50,000 books and monographs to its collection each year. Because of the rapid rise in book prices this number has fallen from a high of about 70,000 titles a few years ago, and if this situation were allowed to continue, it would represent the erosion of an asset essential to the intellectual life of the University. In the budget described in this report, we propose to begin a reversal of this process. However, we cannot reverse it fully in a single year, since to do so would require overly stringent budgets elsewhere.

Throughout the recent period of financial stringency, we have done whatever major maintenance was necessary to keep our physical plant in good condition. No repairs that could affect the structural soundness of buildings have been deferred. On the other hand, we have been deferring some redecorating and refurnishing, so that some interiors in both academic buildings and dormitories do need work. The Priorities Committee does not believe that expenditures on refurbishing have as high a priority as those we are recommending, however.

We are pleased that the operating budget has improved and that the University has been able to maintain and augment its financial and intellectual capital during a difficult period. However, we are not misled into believing that the fundamental economic problems of the University have been solved. To a considerable extent, the University is not the master of its own budget. Our budget is embedded in a much larger economy whose basic trends and cyclical fluctuations must be taken as given. All that we can do is cope with them more or less well. The rate of inflation has abated slightly in the past year, but is still at about 5 1/2 percent. Since 1973, the salaries of faculty and staff, like those of most other American workers, have risen less rapidly than the cost of living. Even to restore their purchasing power to what it was a few years ago, we must now raise salaries faster than the general price level is rising. As the Priorities Committee has repeatedly noted in past years, a university cannot recoup salary increases from productivity gains to any significant extent, especially in academic programs. In this respect we are unlike enterprises that produce physical goods. All of this means that our costs will probably continue to rise faster than earnings from endowment or income from gifts and grants, and therefore increases in student tuition and fees will be necessary. To help students from less affluent families cope with these increases in charges, we must also continually increase the budget for financial aid.

In addition to inflation, there is a second external force that adds to the fundamental financial problems of the University. This is the growing web of government regulations and the increasing litigiousness of our society. These make it increasingly difficult for us to reduce administrative costs more than we already have. The University must comply with government regulations in the areas of affirmative action, occupational health and safety, environmental protection, housing codes, pension plans, and even such matters as the proper ventilation of facilities that house laboratory animals. In part, we must comply with government regulations because we are a government contractor; almost all of the sponsored research we do is government supported. But this is by no means the only reason. Even if we did no government sponsored research at all, we would have to comply with many regulations simply because we accept government scholarships and fellowships for our students, or because we employ workers or burn fuel. We do not mean to complain about these regulations, since in general we agree with their fundamental purposes, if not always with the way in which they are administered. But compliance and reporting cost money that could otherwise be spent in other ways, and preclude easy answers to budgetary difficulties through further cuts in administrative and supporting staff.

Moreover, the University -- like so many other institutions and individuals -- has in recent years been faced with a growing number of legal actions brought by former employees, by unsuccessful candidates for degrees, and by unsuccessful applicants for admission. The absolute number of such suits is not great but almost any suit tends to be costly and exceedingly time-consuming. The fact that we have won these suits does not relieve us of the costs of defending them, nor prevent the resulting rise in our premiums for liability insurance.

It is for such reasons that the effort to balance the budget is not a battle that can be won in any one year but a protracted struggle whose end is not in sight. We are determined to maintain and enhance the quality of Princeton, to keep it both a great university and a warm and humane place for its students, faculty, and staff. To do this we must continue to husband our resources and to re-examine our priorities with as much wisdom and good judgment as we can muster.

II. SPECIFIC RECOMMENDATIONS FOR 1977-78

The Committee's deliberations were made immeasurably easier this year by the existence of the Provisional Plan drawn up by last year's Committee. This Plan was developed not as a blueprint to be followed assiduously but as one possible set of actions that the Committee believed, based on the information it had available at that time, could produce a balanced budget for 1977-78 and beyond. It served as a benchmark against which this year's Committee could measure budget requests and as a starting point for our discussions. In many areas we are recommending departures from the Provisional Plan, major departures in some cases; in other areas we are recommending that the Provisional Plan be followed more or less as it was developed a year ago. In every area, however, our recommendation is a result of a careful review of the budget request and not simply a casual adherence to the Provisional Plan. The Provisional Plan was a useful tool for focusing Committee discussion on the important issues before us, but it was not used as a substitute for judging each request based on the best information available right now.

In this report, however, we will concentrate on those areas in which we are recommending major departures from the Provisional Plan: student charges and financial aid, graduate and undergraduate; faculty staffing; the Library; support of research activities; Food Services; faculty and staff housing; salary policy. The other budgetary units will be discussed more briefly at the end of this section, not because these units are less important but because they do not involve major changes from the Provisional Plan, and the judgments made last year -- and the arguments supporting those judgments, as put forward in last year's report -- still seem appropriate.

1. Student Charges and Financial Aid: Undergraduate. We recommend that undergraduate student charges be increased by a total of $420 for 1977-78 -- $350 for tuition, $35 for the room rate, and $35 for the board rate (for a 20-meal contract); these increases would raise the levels of tuition, room, and board to $4,650, $915, and $1,130 respectively. At the same time we recommend that the scholarship budget be increased by $399,000 to a total of $4,869,000 for 1977-78.

Total Student Charges. The increase of $420 is about $100 less than the $519 that had been called for in the Provisional Plan ($400 in tuition plus 6% in room and board). This recommendation reflects the concern that the Committee has about the effects that large increases in tuition and other costs have upon many students and their families. Students with the greatest financial need have been insulated -- appropriately, we think -- from the increases of the last few years by the increases in the scholarship budget; indeed, the University has made an explicit policy decision -- one which few other institutions have been able to make -- to provide sufficient financial aid for all undergraduates who need it precisely to insure that such students are in fact able to attend Princeton. Many students at or near the financial aid threshold have had to bear the brunt of these increases in charges, however, and their problems have grown increasingly serious. There is no evidence that recent increases have changed in any adverse way the mix of students who come to Princeton or that significant numbers of students are dropping out for financial reasons. (We were pleased to learn that the Consortium on Financing Higher Education is in the process of conducting a study, similar to the one conducted several years ago by Associate Provost Richard Spies, on how students decide where to apply to college; we hope that this study will help answer many of the important questions about what kinds of students are -- and are not -- applying to institutions like Princeton.) However, our ability to attract and hold students is only one part of the picture. At least as important to the health of the University is the effect that increases in charges have on those students and families who have already made a commitment to attend Princeton, and on their ability to make the most of the opportunities Princeton offers them. It is the nature of the economics of higher education that student charges will almost inevitably have to rise faster than the general rate of inflation, but, in this year at least, when the general financial picture of the University has improved enough that we are able to consider some departures from the Provisional Plan, we believe that a special effort should be made to keep the increases in charges as small as possible. For this reason we are recommending an increase in tuition of $350, and a total increase in undergraduate charges of $420. This increase of 6.7% in total charges is considerably less than the 8.2% and 12.1% increases of the last two years and, based on the limited information that is available at this time, less than the increases that will be implemented at most of the schools with which we normally compare ourselves.

Room and Board Rates. The arguments have been made and remade in past reports of the Priorities Committee and elsewhere about the role of dormitories and dining halls in the University, and whether they should run deficits or surpluses; we will not repeat those arguments here. The undergraduate dormitory and dining system does run an operating surplus, but that "surplus" would be more than wiped out if a reasonable allowance were made for the enormous capital costs of the system. This operating surplus is somewhat larger than we think it has to be, however, so we are recommending increases in room and board rates that are below those provided for in the Provisional Plan. In particular, we are recommending increases of 4% in the room rate ($35) and 3.2% in the board rate ($35 for the 20-meal contract, less for other contracts) compared to the 6% increase envisioned in the Provisional Plan. We think these increases strike the right balance between the need to recover the full costs of the dormitories and dining halls and the desire to keep the increases in student charges as small as possible.

Undergraduate Financial Aid. We recommend a scholarship budget of $4,869,000 for 1977-78, an increase of about $400,000 from the current year. We continue to believe that Princeton should provide enough financial aid, including scholarship aid as well as loans and jobs, to meet fully the documented needs of all undergraduate students. We believe that such a policy is necessary to attract a student body that is both able and diverse, and an inevitable extension of Princeton's commitment to a quality education for the very best students it can attract. We heartily endorse, therefore, the recommendation of the Committee on Undergraduate Admission and Financial Aid that admissions decisions be kept separate from financial aid considerations and that aid be provided for all students who need it.

Once that policy is agreed upon and once tuition and other costs are determined, the only budget decision that has to be made is how much of that aid should be provided in the form of scholarship and how much should the student be responsible for in the form of loans and jobs. Here the only controversial part of the budget request for 1977-78 concerned the loan expectation. Over the last several years the amount that a student is expected to borrow before being eligible for scholarship assistance has risen steadily, to its current level of $1,250 per year for most financial aid students. The faculty and student Committees on Undergraduate Admission and Financial Aid recommended that we keep the loan expectation constant for next year, rather than increasing it $50 as envisioned in the Provisional Plan. They argued that Princeton's self-help expectation is already higher than it is at many of the schools with which we compete and that some students with special needs are beginning to reach the maximum loan levels permitted by law under the various government lending programs. Although we generally believe that it is reasonable to expect students to borrow to help pay for the cost of their education, we have been convinced by the arguments of those Committees, and we endorse their recommendation. The scholarship budget we are recommending assumes no increase in the loan expectation for 1977-78.

We should like to commend the efforts of the Undergraduate Financial Aid Office and other administrative offices to help "middle income" families meet the high cost of attending Princeton. The decision made last year to make loans more readily available for students who do not meet the University's normal definition of financial need was, we think, an important step. In addition, the administration is actively considering a loan plan for the parents of students in this category, to help them spread the cost of education over a period longer than four years. We hope that it will be possible to implement this plan, and we are confident that the administration will continue to be sensitive to the needs of both low and middle-income students and their families.

2. Student Charges and Financial Aid: Graduate. We are recommending that graduate tuition also be increased by $350 (to $4,750); that room and board rates at the Graduate College increase by 6% each; that rents in the various graduate student

apartment units also go up by 6%. In addition, we recommend that the budget for University Fellowships be increased by $53,000 over what the Provisional Plan would have provided in order to make some modest improvements in the graduate student support package.

Total Student Charges. In many ways the consideration of charges for graduate students is more complicated than it is for undergraduates. Many graduate students have fellowships or assistantships that are completely unrelated to financial need; most graduate students are financially independent of their parents, and many have families of their own to support; the number of the very best graduate students in any one field is extremely small and the competition for them is frequently quite fierce. This list of complexities could be expanded at great length, but the only real conclusion that can be drawn from all this is that one has to view charges for graduate students in a quite different light from undergraduate charges.

Having said all this, however, we still think it is reasonable to ask graduate students to bear part of the burden of the increased cost of providing a quality education. For many of the same reasons that we believe it is appropriate to recommend somewhat smaller increases for undergraduate students than the Provisional Plan had called for, so too we believe that graduate charges should go up less than previously planned. An increase of $350 in graduate tuition, maintaining the $100 differential between graduate and undergraduate tuitions, seems to us to be a reasonable compromise.

Housing and Dining. We recommend that room and board rates at the Graduate College be increased by 6%, a larger increase than we are recommending for the undergraduate dormitories and dining halls but considerably less than called for in the Provisional Plan. We think rates at the Graduate College should continue to go up faster than the undergraduate rates until they reach some kind of parity. (For largely historical reasons rates at the Graduate College are about 12% below undergraduate rates.) At the same time, given the cost pressures that graduate students are under and given that stipend levels have increased only slightly over the last few years, we believe that Graduate College rates should not be increased too rapidly and parity should be estabished only over a period of years. We believe that the 6% increase we are recommending strikes the right balance between these two sets of concerns.

The same arguments apply to the graduate student apartments in Butler and Lawrence as well. Here we recommend a 6% increase in rents, the same rate of increase we are recommending for the Graduate College and for faculty and staff rental housing.

Graduate Student Support. Last year the graduate fellowship budget was increased enough to improve the mix of fellowships slightly, increasing the number of students receiving the so-called "A" fellowship (tuition plus a stipend of $2,500). This year the problems of the graduate students are, if anything, more serious than they were then, and we believe that the Provisional Plan needs to be revised again. We are, therefore, recommending that the budget request submitted by the Dean of the Graduate School be approved exactly as it was presented. That request called for an additional allocation of $53,000 to provide a limited number of half-tuition grants for returning students who had not received any fellowship support previously and to upgrade a few of the "A" fellowships for incoming students by increasing the stipend level to $3,000. This upgrading of at least a few "A" fellowships is particularly important since it will make our very best fellowships more competitive with those offered by other leading graduate schools. We believe that, even in times of financial stress, it is essential to maintain a strong Graduate School and we think that this budget will help achieve that end.

3. Faculty Staffing. The Provisional Plan calls for a reduction of ten in the number of full-time-equivalent faculty (FTE's) on the teaching budget for 1977-78. On the basis of our discussions with the Dean of the Faculty and the other academic deans, we believe that this reduction could be accomplished without severely damaging the basic educational strength of the University. At the same time, we are convinced that limiting the reduction to five FTE's instead of ten would be of substantial benefit to the overall academic effort of the University. It would give the Dean some flexibility to respond to staffing problems in particularly hard-pressed departments (which are not

necessarily those departments where cuts had previously been planned). Given the central importance of the faculty to any university, but particularly to a university such as Princeton where the emphasis is placed on a close interaction among faculty members and between faculty and students, providing this kind of flexibility deserves a high priority. We recommend, therefore, that the teaching budget be reduced by only five FTE's rather than the ten called for in the Provisional Plan.

4. Library. Of all the issues considered by the Committee this fall, the problem of what to do about the Library budget was probably the most difficult. The Provisional Plan provided for a 1% increase in staff in the Library, and the University Librarian argued that that increase was essential if the Library was to achieve the savings that had been projected and still provide an adequate level of service for its users. We have been convinced by his arguments and we recommend that the increase in staff be approved.

The Provisional Plan also called for an increase in the general funds budget for acquisitions which, when combined with the 8.9% increase being projected for the earnings from endowed book funds, would have provided an additional $132,000 (for a total of almost $1.7 million) for the acquisition of books, serials, and other materials. The Librarian argued that this increase was not sufficient to keep up with the expected increase in the cost of books and journals, let alone make up for past inflation, and he requested an additional allocation of

$250,000 for acquisitions. This request has the strong support of many of the faculty and students we have talked to, and, indeed, there are a number of people who feel that even this amount is too small. We share with these people the belief that an excellent library is a critical part of the University's programs of teaching and scholarship, and we agree that it is very difficult, probably impossible, to rebuild a great library once it has been allowed to decay. However, this is the first year that tight budgets have been imposed in the acquisitions area. Because of this lack of previous experience, there are a number of things that concern us about this budget request. At this point we are not convinced that more money is the only -- or even the best -- answer.

There are, we think, two possible reasons for the widespread concern about the Library acquisitions budget:

> First, of course, it may be that the acquisitions budget really is much too small to purchase all the materials that are needed by faculty and students;
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> Second, it may be that the method that has been adopted for distributing the resources that are available among disciplines and fields of study (which is based on actual expenditures in previous years) is inequitable, thus exacerbating the problem by limiting some disciplines unnecessarily while giving others more than they need.

We suspect that neither of these answers is completely correct, and that they are both at least partially correct. The problem is that we do not yet have any way of quantifying these various factors and deciding how much money really is needed. We hope to work closely with Mr. Richard Boss, the University Librarian, and concerned members of the faculty over the coming months to learn more about the real facts of the situation. The results of this effort can be incorporated into the 1978-79 budget request that Mr. Boss will be submitting next fall or, if the need appears to be more urgent than that, a supplementary request for additional funds for 1977-78 can be made.

In the meantime, we recommend that the Library budget called for in the Provisional Plan be increased by $150,000 for acquisitions. We have also made a significant change in the Provisional Plan to prevent further erosion of the Library's purchasing power in future years. Rather than assuming, as was done in previous years, that only the general funds portion of the acquisitions budget should grow at the anticipated rate of inflation for these materials, we have assumed that the total acquisitions budget will grow at that inflation rate. The Library has been experiencing inflation rates of about 10% per year in the costs of books and other materials in recent years, and we are assuming that this inflation rate will continue. Since the earnings on endowed book funds and other restricted funds, which make up almost half the acquisitions budget, have traditionally grown at a much lower rate (5% or less), the general funds budget will have to grow much faster than 10% to keep the total acquisitions budget even with inflation. As will be explained in Chapter III, the Committee has, for the first time assumed in the Provisional Plan that these general funds will be provided. Finally, we urge the President and the Development Office to continue to put a high priority on endowment funds for Library acquisitions in their fund-raising efforts.

Before leaving the subject of the Library, we should point out again that the Provisional Plan adopted last year assumed that the Library could achieve annual savings of $250,000 by 1979-80, compared to budget projections based on no change in the pattern of service. Like the reduction in the size of the faculty and a few other budget cuts, the Library savings could not be realized in one year, and so they have been phased in over a number of years. The target of $50,000 in annual savings for the current year has already been achieved, but the additional $80,000 assumed for next year will be tougher. The only sensible way of achieving savings of this magnitude is to reduce the number of service points, and that requires the patience and cooperation of a large number of users. It is essential that all users respond in just that way. Although the University budget is back in balance this year, we must still achieve those savings that have already been planned if we are to keep it in balance next year and in the future.

5. Support of Research. For the last two years the University Research Board has been recommending an increase in the general funds support of research activities on campus. The arguments for providing such support are both clear and strong: research and scholarship are part of the central mission of any institution that claims to be a university, not just a separate activity that should be permitted only if it can pay its own way. In addition, the instructional program itself benefits enormously from the research activities of the faculty, and some of the best teaching takes place as part of sponsored research projects. Indeed, one of Princeton's greatest strengths is that it is hard to tell where the instruction ends and the research begins.

The Priorities Committee recognized the force of these arguments each year, but reluctantly concluded that we simply could not afford to increase the general funds support of research at a time when most other areas of the University were being cut. This year, given the improvement in the University's financial position, we believe that some modest increase in the funds going to research should be provided. In particular, we recommend that the amount of tuition charged to sponsored research contracts for Assistants in Research (AR's) not be increased next year, and that general funds be used instead to pay for the entire increase in tuition. This recommendation will give faculty members who support graduate students out of research contracts a little bit more money to spend on other research expenditures than they would have had otherwise, thus enabling faculty and students to do somewhat more research for the same number of dollars; it also recognizes the enormous contribution, both financial and educational, that sponsored research makes to the overall academic effort.

We also recommend that the fund for research projects in the humanities and social sciences administered by the Dean of the Faculty be increased by $18,000. We believe that it is important to support the research and scholarship that takes place in the humanities and social sciences, as well as that conducted in the science and engineering departments, even though (or perhaps because) very little of it is supported by sponsored research contracts.

6. Food Services. The budget for Food Services has been cut several times over the last five years. It now appears that we have cut too far and that some special effort is needed in this area if we are to provide a reasonable level of service for students and other Food Services users. Over and above the normal increase for inflation, Mr. William Hickey, the Director of Food Services, requested a net increase in his budget of approximately $146,000 for 1977-78. This amount would be used to increase the full-time staff, upgrade equipment and furniture, and make other improvements in the Food Services operations. The Commitee was impressed by Mr. Hickey's knowledge and enthusiasm, and we strongly support his efforts to improve the quality of service. In an overall University budget that is as tight as we

think this one is, we do not feel that we can depart from the Provisional Plan by as much as $146,000 in this one area, but we are recommending that the Food Services budget be increased by $100,000 over the amount called for in the Provisional Plan. We feel that this is an extraordinary -- although necessary -- response to a very serious problem. We expect that this increase, together with other improvements that Mr. Hickey has already made or is planning, will make a significant difference in the quality of Food Services.

7. Faculty and Staff Housing. We are recommending that rents for most faculty and staff housing units be increased by 6%, with the larger units scheduled for somewhat smaller increases, rather than the 7% increases that were called for in the Provisional Plan. Although we still believe in the principle that whatever funds are available for compensation should be distributed directly through salary increases and not indirectly through housing subsidies, the rents in most faculty and staff housing have risen enough that they are no longer well below the market rates (although it is hard to define exactly what the market is that these units should be compared to) and thus it is not clear what if any subsidy is being provided. For the time being at least, we believe that rents should be increased at or just above the general rate of inflation and less than the overall rate of increase of salaries.

8. Salary Policy. We recommend a total allocation of $3,275,000 for salary increases and related personnel benefits

for those employees supported by general funds. This is more than $200,000 larger than the amount that had been projected in the Provisional Plan, over and above the special increases provided earlier this year for members of the Bi-weekly "A" staff.

We feel that it is entirely appropriate for us to recommend departing from the Provisional Plan in the area of salary increases. One of the things last year's Committee found most troubling about the Provisional Plan was that it called for salary increases that were only slightly above the projected increases in the cost of living. This means, in effect, that the Committee was projecting only a very small increase in the "real" incomes of faculty and staff. Last year's Committee was extremely worried about the implications of such projections, but ultimately concluded that there was nothing that could be done given the financial constraints they forecast for the next few years. They reluctantly included those projections in the Provisional Plan and expressed their concerns in the text of their report.

This year's Committee also agonized over the salary issue. Although the rate of inflation seems to have dropped somewhat (meaning that a given salary increase would be eaten up less completely by inflation and would thus provide a larger increase in real income), the need for adequate salary increases seems just as great as it did last year at this time. When it became clear that the University's financial condition had improved enough for us to consider major departures from the Provisional Plan, this is one of the first places we looked. It is a very difficult task to balance the need for smaller increases in student charges, for larger budgets for the Library and faculty staffing, and all the other needs of this University, but salary increases are -- and always have been -- accorded a very high priority. The Committee recognizes that a university is completely dependent on the quality and enthusiasm of its faculty and staff. If Princeton is to continue to attract the very best people at all levels and, at the same time, maintain the morale of the people who are already here, we must provide adequate levels of compensation. Although we do not believe that the salary pool we are recommending will solve all of the salary problems that exist in the University, we do believe that, given the very pressing needs of so many other parts of the University, it does represent an extraordinary allocation and that it does in fact demonstrate the very high priority we attach to salary increases.

The administrative arrangements for distributing this salary pool among the various staffs will be worked out by the Dean of the Faculty and the Vice President for Administrative Affairs. They will, of course, be concerned about equity among groups as well as the competitive position of each group in the relevant labor market, and we anticipate that the salary allocation we are recommending here will be large enough to permit exceptional increases for a few employee groups where special needs exist.

9. Budgetary Units That Do Not Depart Significantly from the Provisional Plan. We are recommending what amounts to a stand-pat budget for the Computer Center. In fact this budget will actually decline next year because the final payment on the amortization of the IBM 360/91 takes place at the end of this year, but that decline was projected as part of the Provisional Plan. As far as other expenses are concerned, the budget for next year assumes the same level of staff as currently exists and some modest increases in operating expenses to keep up with inflation.

We are recommending that the University subsidy of McCarter Theatre be continued at its current level, after adjusting for inflation. The McCarter Theatre Board and staff, the McCarter Associates, and a number of other interested people have done a tremendous job of fund raising over the last year, and their efforts have paid off handsomely. Despite the expiration of some major grants, the Theatre is expected to cover its expenses for the current year and is well on its way to raising the money needed to support the Drama Series for next year. The Committee is, of course, enormously pleased by these developments and we recommend that the University continue to support this very important activity.

We are also recommending that we stick to the Provisional Plan in the area of Athletics and approve the Department's request essentially as it was presented to us. We support and applaud the efforts of the Department to shift resources within their current budget to increase the support for women's athletics. Given the other pressures on the overall University budget, we do not believe that any significant increase in funds for Athletics above the Provisional Plan could be provided, and we are pleased that the Department is able to make these important changes without having to request such an increase.

For Housing and the Facilities Department we are recommending that we follow the Provisional Plan quite closely for 1977-78. Some minor increases are required to cover the maintenance of new space now being built adjacent to Moffett for animal laboratories, expenses related to our energy conservation and control program, and a modest program of repair and replacement of furniture and other interior fixtures, but the total for all these additions only comes to about $35,000.

In General and Academic Administration we are also recommending what amounts to a stand-pat budget with a few minor exceptions. Among these exceptions is an increase of $23,000 in the Office of the Dean of Student Affairs to increase the support for Outdoor Action, the Women's Center, a small number of additional resident advisor positions, and some smaller activities.

The budget for Security is expected to go down slightly, but a planned redeployment of personnel should result in improved coverage.

III. THE PROVISIONAL PLAN

This year's Priorities Committee takes very seriously, as did our predecessors, the Committee's responsibility to look beyond the budget year immediately ahead and to try to assess the impact of our recommendations on future budgets. Given the long-term nature of the University's commitment to individual people -- and, more generally, to the entire educational and scholarly program -- it is essential that we look ahead more than one year. The Provisional Plan, a projection of the University's budget four years into the future, is the principal tool the Committee uses to take this first step in long-range planning.

Before describing the assumptions that have been built into this year's Provisional Plan, we should first emphasize that this Plan represents only one possible set of actions that might be taken in future years. Our assumptions will almost certainly be altered, probably in some significant ways, by future Committees, just as we have altered substantially the Provisional Plan developed by last year's Priorities Committee. We have no illusions about the permanence of the assumptions we have incorporated in the Provisional Plan this year; indeed, we think it would be extremely unwise for the University to etch any set of budget recommendations in stone, to be followed rigidly no matter what happens. Circumstances change, both inside and outside the University, and each year's budget should be evaluated in the light of the best information available at the time decisions must actually be made. We have approached the 1977-78 budget in this spirit, and we urge future Committees to do likewise.

Some of the changes in the Provisional Plan that will be recommended by future Priorities Committees will be necessitated by changes in the needs of different parts of the University -- or by differences in the perception of future Committees about needs that already exist. In addition, however, factors completely beyond the University's control affect our budget in significant ways -- the price of oil, for example, or the behavior of the stock market -- and changes in any of these factors could force us to revise one or more of the assumptions built into the Provisional Plan. In developing this Plan we have incorporated all the information available at this time and have made the best projections that we can develop for each of these factors, but the amount of uncertainty that is inherent in projections of this kind is enormous. In January 1974, for example, the Priorities Committee recommended an increase of about 1% in the size of the faculty and a tuition increase of only $200 for 1974-75; at the same time, they projected further increases in the size of the faculty of 1% per year and tuition increases of $250 each year through 1977-78. The Committee, along with almost everyone else, had completely underestimated the economic turmoil the nation was about to experience. By the fall of 1974 the inflation rate in this country was hovering

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around 12%, unemployment was rising, and the stock market had fallen dramatically. Against this somber background, the Priorities Committee of 1974-75 looked at a budget deficit in excess of a million dollars; they recommended that the size of the faculty be reduced by slightly more than 1% and that tuition be increased by $400 for 1975-76. Although the Committee did not actually produce a Provisional Plan that year, they clearly envisioned that further cuts in the size of the faculty and staff and large increases in tuition and other charges would be required in the future.

We do not mean to imply from all this that million dollar swings in the budget occur every year, or that one is likely to occur next year, but this experience does suggest that no Provisional Plan developed by this or any other group carries any guarantees. In a budget the size of Princeton's, a swing of only one percentage point in either income or expenditures can throw the whole budget out of balance -- in either direction -- by one and a half million dollars.

Despite all the uncertainty that is inherent in long-range planning, we believe that the Provisional Plan is an extremely useful tool. In particular, we think it serves two very important functions: 1) It provides a starting point for future Committees to work from, a kind of benchmark against which to measure the requests that have been made and their own judgments about those requests. 2) Despite the uncertainties, the Plan shows that, based on the best information currently available, the basic policies being recommended can reasonably be expected to lead to a balanced budget, not just for the following year but for at least three years beyond that. In short, the Provisional Plan does not in any way guarantee the University either educational or financial stability, but it does enable us to face what is, by definition, an uncertain future with a sense of confidence that we are on the right track.

The Provisional Plan itself is summarized in the following table and explanatory notes. The major features of the Plan include: tuition increases of $350 each year; increases of 5.5% per year in undergraduate room and board rates, 6% in Graduate College rates and in rents for graduate student and faculty and staff apartments; a continuation of our current undergraduate student aid policies for all years, with no increase in the loan expectation for FY79 and increases of $75 per year for FY80 and FY81; a continued phasing in of the improvements in the graduate student support package that are being recommended for next year; no change in the size of the faculty after the reduction being recommended for 1977-78; increases in the Library budget sufficient to provide a 10% per year increase in the total budget for acquisitions; increases of 5.5% per year in most non-personnel expenses and no change in staffing levels for administrative and supporting services; allocations for salary increases each year equal to 6.5% of the salaries of all continuing employees. As the table shows, these assumptions are expected to produce what are essentially balanced budgets for FY79, FY80, and FY81, as well as FY78.

The Committee is much less uncomfortable about the policy decisions that the Provisional Plan envisions than was last year's Committee. We have not developed this Plan casually and we do not underestimate the problems that will be associated with its implementation. At the same time, we definitely do not have the sense of unease that last year's Committee had when the financial situation as it was then perceived forced them to project further cuts in the size of the faculty, increases in tuition and other student charges of more than $500 per year, increases in salaries for faculty and staff that barely kept ahead of the cost of living, and other comparable actions. This year's Provisional Plan provides for some improvement in all of these areas, and we are enormously encouraged by the favorable developments that have made this possible. We would, of course, like to see even larger salary increases and smaller increases in tuition and other charges than we are projecting here, and we hope they will be possible. Nevertheless, we believe that, with the continued support of all members of the University community -- faculty, staff, students, parents, alumni -- the actions contemplated in the Provisional Plan can be implemented and the University's basic programs of instruction and scholarship can be preserved and strengthened.

Provisional Plan: Operating Budgets

FY78 through FY81

(dollars in thousands)

	FY78	FY79	FY80	FY81
Income	150 261	151 732	165 744	178 678
Expense	150 255	151 633	165 720	178 657
Surplus or (deficit)	6	99	24	21

Principal Assumptions Underlying Budget Projections for FY79, FY80, FY81

General Note

In predicting income over the forecast period, earnings from endowment and gifts that are restricted to very specific uses have been matched against the corresponding expenditures.

Income

1. Endowment

    a. Additions are made to principal of $7 million each year, with three quarters of the income being used to relieve general funds in subsequent years.

    b. Income per unit in the investment pool increases 5% each year FY79 through FY81.

2. Tuition

    a. Undergraduate enrollment remains approximately level through FY81.

    b. Graduate student enrollment remains approximately level through FY81.

    c. Tuition increases $350 each year for both graduate and undergraduate students.

3. Contracts and Grants for Sponsored Projects

   Excluding the Plasma Physics Laboratory (PPL), sponsored project direct costs increase in line with general inflation and salary increases in FY79, FY80, and FY81. Indirect costs recoveries increase proportionately. PPL non-government support remains constant. PPL government direct support increases by $10 million in FY78, decreases by $5 million in FY79, and increases by $7 million in FY80. (This apparently odd pattern of expenditures is caused by the large TFTR project which requires different levels of support during different phases of the construction effort.)

4. Other Gifts and Grants.

   a. All current major term grants (or the equivalent) are replaced through FY81.

   b. New gifts that relieve general funds increase by $50 thousand each year.

   c. Annual Giving increases approximately 5% per year.

5. Auxiliary Activities

   a. Athletics income remains approximately constant.

   b. Rental income from Faculty and Staff Housing increases by approximately 6% per year, with differential rates for units with vacancy problems.

   c. Rental income from Married Graduate Student Housing increases by 6% per year.

   d. Commercial property income increases in accordance with the terms of individual leases. In FY79, and continuing in FY80 and FY81, the University begins to receive income from the development of the Princeton Forrestal Center.

   e. Undergraduate room and board charges increase 5.5% per year.

   f. Graduate College room and board charges increase 6% per year.

   g. Income from other dormitory and food operations increases 5% per year.

6. Service Departments

   a. Computer Center volume from all sources remains roughly constant at FY77 levels with income increasing only as rates increase. Rates are projected to increase by 6% per year in FY79, FY80, and FY81.

   b. Other service department income increases in line with general inflation and salary increases.

Expenditures

1. Instructional Budget

   a. The number of faculty charged to the teaching budget remains constant at the projected 1977-78 level.

   b. The number of Assistants in Instruction remains constant.

2. Other Expenses of Academic Departments and Programs

   a. Sponsored research increases in line with general inflation and salary increases in FY79, FY80, and FY81.

   b. Budget allowances covering supporting staff costs and other operating expenses increase in line with the general rate of inflation and the assumed increases in salaries.

3. Graduate Fellowships

   These expenditures increase as tuition increases.

   a. The number of students supported from government and other outside sources remains approximately constant through FY81.

   b. The support of students on University Fellowships increases slightly in accordance with upgrading plans being recommended for 1977-78. (See section 2 of Chapter II.)

4. Undergraduate Student Aid

   These expenditures increase as tuition, room and board, and other expenses increase. Outside support of scholarships increases slightly each year. Self-help expectations are as follows:

   a. No increase in the loan expectation for FY79; increases of $75 per year for FY80 and FY81.

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b. Income from employment during the academic year and from summer jobs increases each year, but only to the extent that wage rates increase.

5. Library

   a. General funds increase at a rate sufficient to keep total acquisition funds growing 10% per year.

   b. The number of personnel remains constant at the recommended 1977-78 level.

   c. Operating expenses increase by 5.5% per year.

   d. Annual savings targets are achieved.

6. Computer Center

   a. The number of personnel remains constant.

   b. Annual expenses increase approximately 5.5% per year.

   c. Long term expenses remain approximately constant.

7. Academic and General Administration, Athletics, Security, and Other University Services

   a. The number of personnel remains constant.

   b. Operating expenses increase by 5.5% per year.

8. Physical Planning and Facilities

   a. Service functions are maintained at minimum levels for preservation of plant.

   b. The base rate of natural gas increases 1% per month; other billing factors increase 10% each January.

   c. The price of fuel oil increases 1% per month during the six-month heating season of each year.

   d. The price of electricity increases 1/2% per month.

   e. Taxes increase approximately 5% per year.

f. The costs of other materials, supplies, and purchased services and other operating costs increase 5.5% per year.

g. The number of personnel remains constant, except for increases required as a result of additions to the physical plant (Life Sciences Building).

h. Energy consumption estimates assume a continued conservation program, a 3% annual increase in electrical usage, load adjustments for plant changes, and reductions resulting from capital investments as follows:

	% Decrease from Previous Year		
	FY79	FY80	FY81
Electricity	5.1	3.4	0
Fuel	13.5	7.9	1.6

9. Dormitory and Food Services

a. Food costs increase 5.5% per year.

b. Other operating expenses increase 5.5% per year.

c. The number of personnel remains constant at the level recommended for 1977-78.

10. Salary Increases

Total pool for salary increases of 6 1/2% in FY79, FY80, and FY81.

APPENDIX A

PRINCETON UNIVERSITY

Operating Budget: Income
(in thousands of dollars)

	1975-76 Actual (1)	1976-77 Current Estimate (2)	1977-78 Projection (3)	Difference (3) - (2) (4)
1. Endowment Income Used	17 545	17 992	19 435	1 443
2. Student Fees:				
a. Undergraduate Tuition	17 002	18 567	20 255	1 688
b. Graduate Tuition	5 271	5 834	6 289	455
c. Other	437	495	501	6
Subtotal	22 710	24 896	27 045	2 149
3. Gifts & Grants (non-gov't):				
a. Sponsored Projects	2 178	2 310	2 440	130
b. Other	8 469	7 777	7 984	207
Subtotal	10 647	10 087	10 424	337
4. Federal & State Government:				
a. Sponsored Projects	46 887	54 746	65 928	11 182
b. Other	2 380	2 683	2 849	166
Subtotal	49 267	57 429	68 777	11 348
5. Auxiliary Activities:				
a. Athletics	642	607	600	-7
b. Dorm. & Food Services	8 925	9 158	9 706	548
c. Faculty & Staff Housing	2 019	2 142	2 246	104
d. Married Student Housing	610	671	716	45
e. Commercial Properties	1 023	944	945	1
Subtotal	13 219	13 522	14 213	691
6. Service Departments:				
a. Computer Center	2 688	3 070	3 111	41
b. Other	2 736	3 658	3 874	216
Subtotal	5 424	6 728	6 985	257
7. Other Income	3 330	3 296	3 382	86
GRAND TOTAL	122 142	133 950	150 261	16 311
Summary of Sponsored Projects				
a. Direct Costs	42 234	49 446	60 346	10 900
b. Indirect Cost Reimbursements	6 831	7 610	8 022	412
Total*	49 065	57 056	68 368	11 312

* Sum of lines 3a and 4a.

PRINCETON UNIVERSITY

Operating Budget: Expenditures
(in thousands of dollars)

		1975-76 Actual (1)	1976-77 Current Estimate (2)	1977-78 Recommendation (3)	Difference (3) - (2) (4)
1.	Academic Departments:				
	a. Instructional Costs				
	1. Faculty, acad. year	14 010	14 627	14 394	-233
	2. Teaching asst. stipends	895	912	912	--
	3. Teaching asst. tuitions	897	961	1 037	76
	b. Other salaries, expenses and benefits	20 236	21 427	22 189	762
	c. Graduate Fellowships				
	1. Univ. Fellowships*	2 089	2 493	2 717	224
	2. Other Fellowships	1 742	1 786	1 872	86
	Subtotal	39 869	42 206	43 121	915
2.	Special Academic Programs	31 139	37 562	47 867	10 305
3.	Undergraduate Scholarships	4 084	4 470	4 869	399
4.	Other Student Aid and Miscellaneous Fellowships	769	769	769	--
5.	Central University Services:				
	a. Library	5 752	5 847	6 127	280
	b. Computer Center	2 598	2 726	2 486	-240
	c. Security	1 422	1 524	1 523	-1
	d. Other	973	1 130	1 124	-6
	Subtotal	10 745	11 227	11 260	33
6.	Administration:				
	a. Academic Administration	4 419	4 653	4 723	70
	b. General Administration	6 927	7 635	7 761	126
	Subtotal	11 346	12 288	12 484	196
7.	Physical Planning & Facilities	14 790	15 355	15 824	469
8.	Athletics	1 933	1 964	1 988	24
9.	Dormitory & Food Services	5 236	5 220	5 494	274
10.	Major Maintenance, Equipment, & Debt Service	2 550	2 624	3 104	480
11.	Salary Increases(incl benefits)	--	140	3 275	3 135
12.	Allowance for Contingencies	--	100	200	100
	GRAND TOTAL	122 461	133 925	150 255	16 330
13.	Estimated Income	122 142	133 950	150 261	
14.	Surplus or (deficit)	(319)	25	6	

* Endowment and General Funds.

Notes to Summary Tables

GENERAL NOTE: Some of the lines of these summary tables have been discussed in detail in the report proper, and no attempt will be made here to summarize information which appears elsewhere.

Income

1. Endowment. The increase here is mainly attributable to a projected increase in the income per unit. Also, the figures reflect recent and projected new additions to the endowment.

2. Other Student Fees. The income from other student fees (principally application fees) is expected to increase slightly.

3. Gifts and Grants (non-government). The principal increase in other gifts and grants is for student aid, particularly graduate student fellowships. This line also includes the Annual Giving campaign on a cash-received basis.

4. Federal and State Government. Most of the increase projected for sponsored projects is for the Plasma Physics Laboratory. The increase in other government support is mainly for student aid, particularly undergraduate scholarships.

5. Auxiliary Activities. Most of these activities are discussed in detail in the report. Income from commercial properties is based on the terms of individual leases.

6. Service Departments. The increase in Computer Center income reflects mainly increased general funds use of time sharing. The "other" category includes income from machine shops, printing and duplicating services, and the Events Office.

7. Other Income. This line consists mainly of income from the investment of current funds.

Expenditures

1. Academic Departments. The increase in other salaries, expenses, and benefits is due mainly to a higher estimated level of sponsored research, and to inflationary increases in general operating expenses.

2. Special Academic Programs. Increase is primarily for the Plasma Physics Laboratory.

4. Other Student Aid and Miscellaneous Fellowships. This line includes miscellaneous awards (prizes, post-doctoral fellowships and the like). None of these items involve general funds.

5. Central University Services. The "other" category here includes the machine shops, stockrooms, and occupational health and safety.

10. Major Maintenance, Equipment, and Debt Service. This line reflects contributions to the major maintenance and capital equipment reserves; these contributions are determined by a formula using a five-year moving average of actual expenditures from those reserves. Annual debt service payments are also included here.

APPENDIX B

Princeton University OFFICE OF THE PROVOST
3 NASSAU HALL
PRINCETON, NEW JERSEY 08540

October 13, 1976

In order to improve communication between the Priorities Committee and the wider University community, the Committee has voted to take the following actions:

(1) Publish the names of Committee members in The Daily Princetonian and the Princeton Weekly Bulletin.

(2) Publish the schedule of Committee meetings and the topics to be discussed.

(3) Hold several (perhaps three) open meetings during the fall. These meetings will be held in the evening and all members of the University community will be invited. The main objective will be to allow members of the community to express their views on budget priorities (either overall budget priorities or the needs of specific areas) to the Committee, but they can also be used to discuss matters of general budgetary concern.

(4) Provide a general summary of Committee meetings for The Daily Princetonian and the Princeton Weekly Bulletin. In general, these summaries will be provided orally by the Chairman of the Committee immediately after each meeting.

(5) Make progress reports to the CPUC, in addition to the final report in January.

(6) Make available to the University community all written material submitted to the Committee that is not confidential. The Committee will abide by the judgments of the people responsible for providing information to us concerning what is and is not to be confidential. Normally, however, we would expect confidential material to be limited to budgets and staffing of small budgetary units and other information which might indicate the salaries of individual members of the faculty and staff, information collected in confidence from sources outside the University, information which might damage the University's position in various negotiations, and other similar information. In addition, administrators may wish to keep confidential certain preliminary proposals for program changes until they have had an opportunity to discuss them with the groups most directly affected.

(7) Include detailed background data in the final Committee report.

PRINCETON UNIVERSITY

REPORT OF THE PRIORITIES COMMITTEE TO THE PRESIDENT

Recommendations Concerning the Budget for 1978-79

January 9, 1978

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B. Projections for 1979-80 and Beyond: List of Assumptions

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D. Provost's Report to the CPUC: December 15, 1977

INTRODUCTION

The purpose of this report is to describe the Priorities Committee's recommendations to the President concerning the 1978-79 budget and some of the trends we see for the future. Chapter I describes the process we followed in reaching these conclusions; Chapter II reports on specific recommendations for 1978-79 and our reasons for making them; and Chapter III describes our current projections for the years beyond 1978-79 and discusses some of the ways the University might respond to the kinds of financial pressures we see there. Because of the nature and magnitude of those financial pressures, we do not feel that our work is complete. We will continue to discuss the situation during the spring, and we hope to reach a better understanding of the issues confronting the University over the next several years.

In addition, a number of Committee members have expressed concern about the process by which the Committee reached the conclusions described in this report and in particular about some of the information and assumptions used in the budgeting process. The Committee has endorsed the formation of a subcommittee to discuss the appropriate ways to review these concerns.

As always, the Committee wishes to express its appreciation to all those members of the University community who participated in the budget process. We want especially to thank those people who prepared material for the Committee or met with us to discuss particular budgets or budgetary issues. The Committee has profited enormously from their expert assistance and, in particular, from their openness and candor in discussing what were often complex and sensitive issues. We want also to thank all those members of the University community who shared their opinions and suggestions with us at various stages of this process, either at our public meeting or through more informal channels.

The Committee has also benefited from the contributions of those individuals who have met regularly with us, either at the suggestion of the Executive Committee of the CPUC or as stipulated in the Charter of the Council: Henry E. Bessire, Vice President for Development; A. J. Maruca, Vice President for Administrative Affairs; and Richard R. Spies, Associate Provost and the executive secetary of the Committee. We are also indebted to Christopher McCrudden and Craig A. Richmond, who shared the duties of recording secretary for the Committee and, more importantly, kept track of all of the numbers and prepared much of the budget material used by the Committee. And, we would also like to thank the person singly most responsible for this report: Elaine Barragan, who typed, photostated and collated numerous drafts (and corrections) before our work was completed.

Finally, we should point out that this report is being submitted with our unanimous support. Although each of us might prefer to see one or more of the specific recommendations changed in some respect -- as well as the process by which we reached those recommendations -- the differences among us are few. We all endorse the overall set of recommendations described in this report and the general statements of principle and policy used to explain those recommendations.

Robert G. Ballen '78
Rodney E. Brisco '80
Earl Dowell
John Gager
Stephen M. Goldfeld
Amy Gutmann
Verlyn Klinkenborg GS
Eric S. Lander '78

Aaron Lemonick
Suzanne McNatt
Diane N. Ruble
Carl W. Schafer
Malcolm S. Steinberg
Lori Ann Weiner '78
Frederick Wright GS
Neil L. Rudenstine (Chairman)

I. THE WORK OF THE PRIORITIES COMMITTEE

The Priorities Committee is one of the six charter committees of the Council of the Princeton University Community. As stipulated in the charter of the CPUC, the Committee has sixteen regular members; three administrative officers serving ex officio (the Provost, who serves as chairman of the Committee; the Dean of the Faculty; and the Financial Vice President and Treasurer); six members of the faculty, including at least one from each of the four academic divisions and at least one non-tenured member; four undergraduate students; two graduate students; and one representative of other groups on the Council (the professional library staff in the case of this year's Committee).

Procedurally, the Committee operated this year in much the same way that it has in previous years. The Committee began meeting regularly in late October and continued at roughly a twice-a-week pace until Christmas vacation. The sessions in October and November were devoted mainly to reviewing requests from individual budgetary units. The administrators or other University officials responsible for the major budgetary units prepared budget requests for us, and then, in most cases, met with the Committee to discuss those requests. As always, the Committee reached very few firm conclusions during this period, preferring instead to wait until we had seen all the requests before deciding about any one of them. In December we reviewed the budget projections again, reestimating all those components which are not under our control and adding up all the requests. We spent the rest of that month looking again at the individual budgetary units, trying to see where reductions could be made and where increases seemed absolutely essential. The result of all these discussions was a tentative set of recommendations, arrived at in late December, which we thought would produce a modest deficit in 1978-79. The Committee then reassembled in January to review these tentative recommendations in the context of a four-year budgetary projection. Those projections -- and the possible courses of action that might be followed to deal with the results shown there -- were discussed and the results of those discussions were incorporated into this final report.

This year's Committee believes, as did its predecessors, that it is important to maintain communication between the Committee and the wider University community. While the privacy of the Committee's own working sessions is essential, we feel the need to seek the views of other members of the University community, both on specific budgetary problems and on more general priorities for the University. To facilitate this communication, we again made available to the campus press and to the general University community (through the Firestone Reserve Room) the written budgetary presentations that were prepared for the Committee. We think this worked quite well and we hope future Committees will continue to make available to the community as much of this written material as possible.

This year for the first time we also provided more detailed reports to the CPUC while the work of the Committee was still in progress. In particular, the Provost wrote to the CPUC in November reporting on the changes in the budgetary situation since the Priorities Committee report of the previous January and indicating the process that the Priorities Committee was following in trying to deal with those changes. In December the Provost submitted another brief report describing the tentative recommendations reached by the Committee at that stage of its deliberations. (Those reports are attached as Appendices C and D of this report.) Again, we think it was extremely helpful for the Committee, and we think for the wider community as well, for us to make reports of this kind and we hope they will be continued in the future.

In addition to these more formal means of communication, we also benefited from several informal meetings with members of the University community. Several of us attended dinner meetings at a number of student dining halls and eating clubs and had what were at times lively exchanges of views with different people on different aspects of the budget. We also sponsored a public meeting to which members of the University community were invited in order to discuss with us the University's financial situation and priorities; that session was reasonably well attended, and the students, faculty, and staff who were present represented a wide range of views on several subjects. Finally, we had several very helpful meetings with members of the Board of Trustees, either the Finance Committee of the Board or its Policy and Budget Subcommittee, and we think that all of us benefited from this early exchange of views.

The purpose of the Committee is to advise the President on matters that affect the making of the budget for the succeeding fiscal year and long-range plans for resource allocation. We understand, as should all members of the University community, that the Committee's role is purely advisory and the weight given by the President and the Board of Trustees to our report depends on the force of the arguments presented there and on the quality of our recommendations. The Committee has neither the time nor the expertise to undertake a detailed line-by-line review of the budget or to involve itself in the day-to-day management of the University, and we gratefully leave those tasks to others. Our role is to make recommendations about the major parameters of the budget that establish, in a broad way, the priorities which govern the use of University resources. The remaining sections of this report describe those recommendations in detail for 1978-79 and outline some of the problems that we think will need to be addressed more fully in 1979-80 and beyond.

II. RECOMMENDATIONS FOR 1978-79

Last January the Priorities Committee projected a balanced budget for the current year (1977-78) and the Provisional Plan drawn up at that time envisaged another balanced budget for 1978-79. Since then, however, a number of the key components of the budget have had to be adjusted -- on both the expense side and the income side -- and the net effect of all these changes has been a noticeable worsening of the overall budgetary picture. Indeed, as the budget summaries shown in Appendix A of this report indicate, we are now projecting a deficit for the current year of just under $500,000 rather than the tiny $6,000 surplus projected in January. Moreover, if we had simply followed the major policy assumptions for 1978-79 envisaged in the Provisional Plan, that deficit would have grown even larger next year -- to something like $700,000.

In a budget the size of Princeton's -- over $142 million in 1977-78 -- a swing of $500,000-$700,000 is not enormous, and the financial problems which the University faces this year are, in relative terms at least, less serious than those of three years ago (when a combination of double-digit inflation, particularly in the cost of energy, and a declining stock market produced an actual deficit of more than a million dollars), or even those faced in the early 1970's (when the annual deficit reached $1.5 million at one point). In some ways, however, the problems are actually more difficult this year than they have been in the past: several sectors of the University are already finding it very difficult to cope with budget reductions forced on us by earlier deficits, and they were in the midst of preparing requests for increases just as this year's financial problems began to become apparent. At the risk of being simplistic, it appears to us that the Committee faced the unenviable task of trying to find fat in a budget in which at least some people thought we had already hit bone.

Without going into excessive detail, we do believe it is important to describe some of the major budgetary changes that have taken place since last January. The largest single change -- in the negative direction -- has been the fact that the projections made last January for indirect cost recoveries from sponsored research were too optimistic. Excluding the Plasma Physics

Laboratory (PPL), we projected the total volume of sponsored research to increase at roughly the rate of inflation; in actual fact, however, the sponsored research direct cost base has not kept pace with inflation and the amount collected in the current year as reimbursements for indirect costs is now expected to fall below last year's projections by almost $800,000. Thus, the amount of money contributed by sponsored research projects to help cover the general overhead of the University is now expected to be about $5.5 million in 1977-78, rather than the $6.3 million projected last January.

In addition, costs in several areas have risen faster than we had expected: the switch to outside investment management has resulted in higher costs for supervision of the endowment; charges for Unemployment Compensation, Blue Cross/Blue Shield, and Major Medical insurance have increased faster than we had expected; budgets in some administrative departments and central University services have been increased, both as a result of increased demands by internal University users and as a result of demands by various governmental agencies to comply with a myriad of regulations and reporting requirements; the number of graduate students supported with University funds has increased markedly as the overall number of students has risen somewhat and some forms of outside support have dropped off; the cost of energy, the charges for sewer taxes, and other similar items have increased more than expected; the estimate of income in Food Services, particularly in the undergraduate dining halls, has been revised downward.

Fortunately, these factors increasing the deficit have been at least partially offset by several favorable developments. The largest of these -- and the most encouraging -- is the remarkable performance of Annual Giving. The Annual Giving campaign last year achieved a mark of $5 million, which topped the previous record by approximately $600,000. This money, which really does make the difference between an educational program that is good but not outstanding and one that is truly excellent, gives us a means of responding to the critical needs of the University even in difficult times such as these. Indeed, our ability to project Annual Giving returns comparable to those of the most recent campaign is a vital factor in our decision to recommend at least some increases in the basic educational program for next year, even in the face of the unfavorable developments described above.

There have, of course, been other favorable swings in the budget, although none as large or as prominent as the increase in Annual Giving: we have been able to make somewhat fuller use of existing endowment funds than we had expected, particularly for student aid and for the support of faculty, thus reducing the need for general funds in these areas; the current freshman class is slightly larger than expected and the overall increase in the number of undergraduates has resulted in more tuition revenue, even after adjusting for the necessary increases in student aid; some uncontrollable expenses, such as real estate taxes, have actually been lower than we had anticipated.

The net effect of all these changes has been, as indicated earlier, to leave us approximately $500,000 worse off for 1977-78 than we expected, and a projected $700,000 worse off for 1978-79. To complicate the situation, moreover, the various budgetary units that made presentations to the Priorities Committee requested further increases in expenditures that would have added another million dollars to that projected deficit for 1978-79. In general we felt that these requests were carefully considered before they came to us, and they addressed very real needs. It was not easy to see what reductions could be made even in these requests, quite apart from reductions which might be made in the already existing expenditure base.

Nonetheless, we have necessarily recommended some reductions, as well as some increases to support the basic educational program. We expect that these actions -- including increases in student fees -- will come very close to eliminating the gap between income and expenditures for next year, producing a deficit of about $85,000. Given our starting point -- a projected deficit of $700,000 plus another million dollars of requests -- we believe that our recommended course of action represents substantial progress and that a temporary deficit of this order of magnitude is acceptable. We do not believe, however, that any university can permit a basic imbalance between income and expenditures to continue for any extended period of time, and the third chapter of this report is devoted to a discussion of the longer-term financial trends and some of the alternative measures that might be taken in order to achieve -- and sustain -- a balanced budget.

Although the Committee's assessment of current priorities can be appreciated most clearly by examining our specific recommendations, it may be helpful for us to state these priorities explicitly at the outset, at least in general terms.

Despite the very serious financial constraints facing the University, the Committee felt strongly that we should resist making across-the-board cuts to balance the budget. Nor do we believe that we should simply reject out of hand all requests for increases, even though accepting some requests adds to the strain on other parts of the budget. The recommendations we are making, therefore, do include significant increases in some areas, and this means that reductions in other areas, and increases in charges, are somewhat larger than they would have been otherwise. We believe, however, that these additions are justifiable -- indeed essential -- and we do not apologize for proposing them, or for proposing the required offsetting actions in other areas.

The specific increases we have suggested are designed to provide a measure of needed support for the basic educational program of the University. We believe strongly that maintaining the academic excellence of the institution should be our highest priority. The Committee has been persuaded that the increases we are recommending -- in the Library, in the support of research, and in faculty staffing and salaries -- however difficult they may be in the current financial situation, are much needed and can make a significant difference to the University's basic programs of teaching and scholarship. We also believe that some reductions in administrative and supporting services must be sustained in order to help pay for these increases. Finally, we have concluded that some portion of the higher expenditures should be borne by students and their families in the form of higher charges, with concomitant increases in student aid for students who are unable to meet these higher costs.

The set of actions we are proposing generally reflects these priorities -- additional investment in the most critical parts of the educational program, reductions in other areas where possible, increases in student charges and financial aid -- and we think this plan represents a difficult but acceptable balance among the different needs of the various components of the University. It would be foolish to pretend that our recommendations constitute an ideal solution, or that the reductions in certain areas will be painless: that is simply not the case. Indeed, we wish that we could find the resources to strengthen -- rather than cut -- certain supporting services, and we are mindful of the fact that some cuts will be very difficult to achieve. Nonetheless, taking all of the needs of the various sectors of the University into account, we see no real alternative to the general course we have charted in this report.

Our specific recommendations include the following:

Faculty Staffing. We are recommending the addition of four full-time positions (FTE's) to the faculty. We expect that these additional positions will help ease the truly extraordinary enrollment pressures in some of our most heavily enrolled departments. Those pressures have become increasingly difficult to deal with because of the coincidence of two factors: first, some departments first began experiencing exceptionally high enrollments as early as 1974-75, and those enrollments have done more than simply remain at the new levels -- they have actually continued to grow with each successive year. Second, these increases have occurred at precisely the same time that the size of the faculty was being reduced -- for budgetary reasons -- by about 20 FTE's. The effects of these pressures have varied from department to department, but, in many cases, class sizes and advising loads have risen and, in two or three departments, some course enrollments have had to be limited. We believe that some relief is crucial, and we are persuaded that even a small adjustment -- restoring four FTE's -- can make a real difference at this point.

Library. We are recommending that the Library budget be increased by $70,000, over and above the increases already called for in the Provisional Plan as allowances for inflation (10% for acquisitions, 5.5% for other expenses). This additional $70,000 can be allocated to acquisitions or to other expenses at the discretion of the Library, but we believe that some significant portion of the $70,000 should and will be devoted to acquisitions. Combined with the special allocation of endowment funds for Library acquisitions that was announced by the Trustees last September at the conclusion of the recent Development Program, this recommendation provides for a substantial increase in the Library's total acquisitions budget. Even these new levels of expenditure will not be sufficient to attain the full acquisition level recommended by the Special Committee on Library Acquisitions and Losses, but they do represent very considerable progress in that direction. We might also mention the collection development effort currently underway in the Library; we hope that this attempt to define more precisely the collection needs of each area of study will provide an even better understanding of the overall needs of the University.

Research. With an awareness of the difficulties this will present for some departments and projects, we have decided to recommend that the rate at which indirect costs are charged to sponsored research projects be increased from 52% to 64% (the best estimate currently available of the allowable rate which will result from the Government audit now underway). This increase is precipitated by a number of factors, including a somewhat faster rate of growth for some components of indirect costs than for their direct cost counterparts and a decline in the direct cost base. An increase of this magnitude, even though it is necessary to meet the true costs of our total research effort, will place a considerable extra strain on the research programs of many faculty and students. Because of the pressures that have come to bear on the sponsored research effort in recent years, including this new increase in indirect cost rates, we are recommending that for 1978-79 the equivalent of two percentage points of the indirect cost reimbursements (approximately $180,000) be allocated for the support of research. In particular, we recommend that this amount be distributed to the individual departments in proportion to the volume of indirect costs recovered at the full rate within those departments. It is expected that these funds will be used by the departments for a variety of important purposes: starter grants for new faculty; direct support of independent research by graduate students and advanced undergraduates; covering costs incurred by research groups after the current contracts have expired but before new funding has been obtained; and the purchase of large items of equipment that can be used by several members of the department. For 1978-79 these recommendations coincide with the recommendations that came to us from the University Research Board.

The Research Board's recommendation for 1979-80 and beyond -- that the allocation be increased to the equivalent of five percentage points, about $450,000 based on the projected 1978-79 research levels -- may be more than the University will be able to afford. In our projections for 1979-80 and beyond, we have shown a continuing allocation equivalent to two percentage points of the indirect cost reimbursements, but at this point in our planning we are not able to project any increase in this allocation -- or for any other category of controllable expenditure. From one point of view, even the $180,000 being recommended for 1978-79 is a substantial new allocation in an already difficult budget year; from another point of view, however, it represents only a modest amount of support for a large sponsored research effort which contributes enormously to the educational and financial well-being of the University, which has been under great pressure recently, and which will be even more hard pressed as a result of the new indirect cost rates. We are persuaded that an allocation of $180,000 for this very important sector of the University is essential at this time, but any decision about increasing that allocation in the future must wait at least until we know more about the other components of those future budgets.

Salary Pools. Over the past few years, there have been a number of special allocations to help supplement staff salaries; this year we believe that a similar effort must be made for at least some groups of faculty, particularly junior faculty. By last spring, for example, it was evident that several of the institutions with which we compete most directly for faculty had enacted quite sudden and steep salary increases for junior faculty, and Princeton has fallen seriously behind. Clearly, this gap of $1,000 or more in starting salaries for assistant professors does have an effect on our ability to attract the very best people to the faculty. At the conclusion of the Development Program, therefore, the Trustees allocated funds to endowment in order to raise the salary base for assistant professors starting in 1978-79. These funds are expected to provide approximately $180,000 for increases in salaries and related personnel benefits. In addition, we are recommending that another $70,000 be allocated to help make salary adjustments for both junior and senior faculty. Finally, we are recommending that the overall salary pool for faculty and staff, not counting these special increases, be held just under the 6 1/2% level indicated in the Provisional Plan. Despite the very serious financial pressures on the overall University budget, we believe that a salary pool of at least this size is essential if we are to continue to attract and hold good people at all levels of the faculty and staff.

Computer Center. We are recommending that the budget for the Computer Center be reduced by $50,000 below the level called for in the Provisional Plan. The Director of the Computer Center has indicated that a reduction of this magnitude can be achieved by making changes in hardware, particularly in some of the peripheral equipment, rather than by reducing staff. We would expect that there would be at least some reduction in service for some groups of users, but the overall level of service should not be significantly affected.

McCarter Theatre. The Provisional Plan provided for an increase in the University's direct contribution to McCarter to offset the effects of inflation. We believe that McCarter contributes importantly to the life of the University community and deserves support from the University. We are enormously pleased by the expanded role that members of the wider Princeton community have played in the operations of McCarter in the last few years -- and by the substantial increase in support for the Theatre from non-University sources -- and we feel that the University must continue to support McCarter in this crucial phase of its development. At the same time, we do not believe that it is possible to increase that level of support when our own financial problems are as serious as they are. We recommend, therefore, that the contribution to McCarter Theatre be continued next year at approximately $134,000, the same as in the current year. The appropriate level of contribution for future years will, of course, have to be reviewed again next year.

Athletics. We recommend that the budget for the Department of Athletics and Physical Education be held at the level called for in the Provisional Plan, basically the current level adjusted for inflation. The Athletics Department has significantly expanded its programs in recent years, particularly in women's intercollegiate sports, without any extra increases in its budget -- indeed, in some years with actual budget reductions. We do not think it is realistic, therefore, to look for further reductions in this area at this time; on the other hand, we do not see how it is possible to approve any increases in budget for 1978-79 beyond the Provisional Plan.

Facilities. We are recommending a reduction of $50,000 in the combined budgets of the various Facilities departments (Housing, Food Services, Building Services, Physical Plant, etc.) below the levels called for in the Provisional Plan. Although final details have not yet been worked out as to where these reductions will come, it is clear that there will be at least some reduction in services for almost everyone in the University community. In particular, there will almost certainly have to be some reduction in the food budgets of the various dining halls as well as some deferral of interior painting and furniture repair. The Vice President for Facilities, working with members of his staff and with the Provost, has already begun to examine the levels of service in this whole area to try and determine whether these reductions can be sustained in 1979-80 and beyond, and whether further reductions are possible in any of these departments.

Central Administration. We are recommending that the budget for the various central administration functions and other central University services be reduced a total of $100,000 below their 1977-78 levels. Although the total budget for all these departments has increased by something over $200,000 over the course of the last year, these increases have been in response to increasing demands placed on these offices, by internal and external constituencies, for increased services, and any reduction below the current level will still involve some curtailment of service for at least some people. The Vice President for Administrative Affairs is working with the Provost and other University officials to determine where reductions can be made, but we are hopeful that some additions will be possible in the most critical areas, such as Health Services, even with the overall reduction of $100,000.

Departmental Administration. The budgets for the supporting staff and operating expenses of academic departments and programs are adjusted every year to reflect changes in the teaching and research activities of those departments, and they are also increased to compensate for inflation. For 1978-79 we are recommending that the adjustment for inflation be reduced by one percentage point. This will, in effect, require each department to absorb one point of inflation through reduced costs.

Student Charges. On the undergraduate level, we are recommending total increases in student charges of $522 for 1978-79. In particular, we recommend that tuition be increased by $450 (to $5100) and that room and board rates be increased by 3.5%, raising the room charge by $32 (to $947) and increasing the cost of a 20-meal dining contract by $40 (to $1170). For the typical undergraduate, then, total student charges would increase by $522 (from $6695 to $7217), a 7.8% increase over the current year. We believe that, for this year at least, it is appropriate to increase tuition somewhat faster than room and board rates, for several reasons: first, we think it is important to keep the total increase in student charges as small as possible, and a tuition increase affects more people, and thus produces more income for the University, than an increase of the same amount in either room or board rates. Second, the undergraduate dining and dormitory system is currently running an operating surplus, and we think it is reasonable to reduce the size of that surplus somewhat next year.

Third, the number of students eating in University dining facilities has dropped substantially the last two years. We would hope that the 3.5% increase in board rates that we are recommending would be small enough to attract at least a few of those people back into the system. Finally, we think that keeping the increases in the room and board rate as small as possible is especially important this year since we are recommending budget reductions in this area: the budget increases we are recommending for next year come largely in the academic sectors of the University, not in Food Services or dormitories.

On the graduate level, we recommend that tuition also be increased by $450 (to $5200), and that room and board rates at the Graduate College and rents in graduate student apartments all be increased by 4.5%. The argument for increasing tuition at a somewhat faster rate than housing and dining charges is basically the same here as it was in the undergraduate case. However, room and board rates at the Graduate College are slightly lower than the comparable charges for undergraduates, and neither the Graduate College nor the graduate student apartment system has an operating surplus. As a result, we believe that it is reasonable to raise room and board charges at a somewhat faster rate for graduate students than for undergraduates.

We believe that the increases we are recommending will not be out of line with increases at other comparable institutions. Moreover, we believe that at least some portion of the increases in the University's costs must be passed on to students in the form of higher charges. Still, we continue to be concerned about the impact that increases of this kind have on students and their families, and we want to keep any increases that may be required as small as possible. We continue to be concerned as well about the effect that such increases have on our ability to attract students from a wide range of economic backgrounds: although it is impossible to know for sure, none of the evidence we have examined demonstrates that the increases experienced over the last few years have had any effect on the applicant pool.

Student Aid. On the undergraduate level we are recommending a scholarship budget of $5,304,000. We believe that a financial aid policy which commits the University to meeting fully the needs of all undergraduates is essential if Princeton is to attract a student body that is both able and diverse, and we believe strongly that such a commitment should be made: the budget we are recommending was developed based on the assumption that Princeton would continue to meet fully the needs of all financial aid students, as those needs are defined by the College Scholarship Service. This increase in the scholarship budget means that scholarship students will not be affected by the increases in charges since sufficient scholarship funds will be provided to meet any increases in their needs. The one respect in which we are asking scholarship students to bear a somewhat greater burden is in the self-help component. Here we are recommending that the loan expectation for aid students be increased by $50 next year (to $1100 for low-income students and $1300 for all others), thus reducing somewhat the need for additional scholarship dollars. On the graduate level we are recommending a budget of $3,261,000 for University Fellowships. While this represents an increase in the total number of dollars allocated to graduate student support, that increase is more than offset by the increase in tuition charges. Given the higher-than-anticipated number of University Fellows in the current first-year class, we believe that a somewhat leaner mix of fellowships is necessary for next year's entering class. The Dean of the Graduate School will be consulting with the Provost and the Graduate School Committee about the actual mix of fellowships that can be provided within this budget.

Faculty and Staff Housing. We recommend that rents be increased by 6% in all faculty and staff housing units. This is the increase provided for in the Provisional Plan for most units, but some provision had been made in earlier projections for smaller percentage increases in the larger units which were experiencing somewhat higher vacancy rates. Vacancy rates in these units are now comparable to those in other types of University housing and we are now recommending an across-the-board 6% increase in rents.

All of these recommendations are, of course, incorporated into the budget summaries shown in Appendix A. More detailed information on the budget requests submitted to the Priorities Committee is available in the Reserve Reading Room of Firestone Library.

III. PROJECTIONS FOR 1979-80 AND BEYOND

This year's Priorities Committee takes very seriously, as did our predecessors, the Committee's responsibility to look beyond the budget year immediately ahead to try to assess the longer-run needs -- and problems -- of the University. Budgeting decisions must be made with a view toward the long-run consequences of those decisions, and, as we indicated earlier, we believe that occasional deficits (or surpluses) are acceptable as long as expenditures do not exceed the available resources over an extended period of time. Over the long run, the financial and educational health of the University depends on our being able to achieve this kind of balance, and it is in this context that the recommendations for any one year must be viewed.

In previous years, the Committee has relied on the Provisional Plan, a projection of its recommendations for the following year another three years into the future, to provide this longer-term perspective. Such a projection can serve several very important functions: first, despite the uncertainties inherent in any kind of long-range planning, the Provisional Plan provides a mechanism for seeing whether, based on the best information available at the time the Plan is drawn up, the basic policies being recommended for the following year can reasonably be expected to lead to a balanced budget, not just for that year, but for the three succeeding years as well. Second, the Plan normally provides a starting point for future Committees, a kind of benchmark against which to measure the requests that are being made and their own judgments about the major parameters of the budget. Finally, in those years when financial problems are sufficiently severe that the Committee feels it has to recommend a budget which is not balanced, the Provisional Plan can be used to indicate specific actions to be taken in future years to bring the budget back into balance.

Nonetheless, we have decided that this year -- as occasionally in the past -- we should not develop a formal Provisional Plan for 1979-80 and beyond, and we have developed instead a range of projections for the future. The basic reason for this decision is that we believe the budgetary problems are likely to get worse over the next few years, and we think considerable changes may have to be made in some major components of the budget in order to cope with those problems. There are a number of reasons for our belief: substantial increases in Social Security taxes are inevitable, even if the legislation recently enacted is modified in future years; because of the timing of the transfer of the investment management responsibility, the fees for such management services have a much larger impact on the budgets for 1979-80 and beyond than they do for 1978-79; and essential increases in the expenditures for major maintenance projects will begin to affect the operating budget in 1979-80 and beyond. Moreover, in addition to these specific areas of concern, there are several expenditure categories that are likely to increase somewhat faster than inflation -- and faster than our normal sources of income -- over the next several years, with energy and library acquisitions the most obvious examples.

Although there are also likely to be some developments in the positive direction over the next few years -- including the increase in indirect cost reimbursements that will result from the phasing in of the higher indirect cost rate we are recommending -- the net effect of all these anticipated changes is that a simple extrapolation of our recommendations, which produce a very modest deficit in 1977-78, would lead to quite sizable deficits in 1979-80 and beyond. We believe that actions can be taken to prevent those deficits from occurring, but, given the dimensions of the problems and the kinds of actions that will be required, we do not feel we can specify a particular set of actions at this time. We have concentrated instead on identifying, in very aggregated terms, the most likely alternatives that will have to be considered if our projections are borne out. The result, then, is not a single plan for dealing with the budgetary problems we expect over this period but rather a projection of what would result from a simple extrapolation of our current assumptions, along with an estimate of how those results would be altered by various actions which, in some combination, might be implemented in order to keep the budget in balance over this period.

Before discussing those projections, we should say at least a few words about the uncertainty associated with such estimates -- and indeed associated with many of the estimates incorporated into the 1978-79 budget discussed earlier. One simple indication of the uncertainty -- or at least of the margin for error -- is that a swing of only one per cent in either income or expenditures could convert the small deficit we are recommending for next year into either a deficit or surplus of roughly one-and-a half million dollars. In a budget as large and as complicated as Princeton's, a shift of this size is entirely possible.

Moreover, this year's projections may well involve a degree of uncertainty that is, if anything, even greater than it has been in the recent past. In addition to all of the normal unpredictability, there are a number of specific areas in these projections where a wide range of outcomes is possible. For example, there are several major policy issues being discussed within the Federal Government that could have major effects on the University's budget: energy legislation (including taxes on various forms of energy and changes in the rate structures for others) being the most obvious example. Another source of uncertainty concerns the earnings from endowment: since the responsibility for the day-to-day management of the endowment has been transferred to outside management firms, it is harder to predict exactly how much income will be available to spend in any given year. Finally, the increase in the indirect cost rate that we are recommending for sponsored research projects may have some effect on the amount of research that is conducted. We have assumed that support for the direct costs of sponsored research will keep up with inflation over the next four years in spite of this increase in the indirect cost rate, but many people in the research community feel this is an overly optimistic assumption.

The projections for 1979-80 and beyond are described in Table I below and in Appendix B of this report. Table I, in particular, shows -- in the line labeled "Raw Projections" -- the projected deficits that follow more or less mechanically from a simple extrapolation of the basic policies being recommended for 1978-79. (Those projections assume increases in student charges comparable to those recommended for 1978-79; a continuation of the basic financial aid policies being recommended for 1978-79; no increases in faculty or staff and only inflationary increases in operating expenses; 6 1/2% salary pools each year. Appendix B provides a more detailed list of these assumptions.) What those projections show all too clearly is a considerable worsening of the University's financial position over the next several years, with the small deficit we are recommending for 1978-79 (FY79) followed by one of almost $2 million in 1981-82 (FY82). We cannot, therefore, expect simply to continue in the future spending or charging in all areas at the levels we are recommending for 1978-79; some expenditures will have to be reduced or new income will have to be generated to close this gap.

The rest of Table I is devoted to a cataloguing of the major alternative actions which might be taken to achieve that goal. Before describing the individual items listed there, we want to emphasize again that we do not regard this set of possibilities as a detailed or comprehensive plan for the next few years. We hope that there will be enough good things happening to the budget over the next year or two that actions of this kind will not have to be taken; the degree of uncertainty in these projections suggests that this is at least a possibility, although it is also conceivable that further unfavorable developments will actually make the situation even worse. In addition, we do not pretend that this is an absolutely complete list of the possible steps that might be taken to deal with a budget gap of this kind, although we have tried to make the list general enough to cover the major possibilities. Finally, we have deliberately identified a set of actions sufficient to go well beyond closing the gap; indeed, if all of the actions shown in Table I were implemented, we could expect to have a budget surplus of close to a million dollars in 1981-82. Thus, even if our projections are perfectly accurate, not all of the actions shown in Table I would be necessary to achieve a balanced budget. This list, then, is only meant to indicate the kinds of actions which, given our present assumptions about underlying economic trends, we think will have to be considered, and to serve as a starting point for further discussions.

The specific items shown in Table I as possible actions include the following:

Programs and Activities. The Committee believes strongly that, in the face of financial adversity, it is better to do fewer things, and do them well, than it is to try to spread the effects of a cutback evenly across all segments of the University. In earlier periods of financial stress, the University has responded at least in part by curtailing or eliminating carefully selected activities, and we believe that we must continue to look for reductions of this kind if major adjustments have to be made. For the purposes of this list, we have assumed that reductions of roughly $250,000 per year might be considered, producing a possible savings of $750,000 per year by 1981-82. At this point, we have not begun to discuss which specific activities might be considered in this category, so it is impossible to know what the impact of such reductions would be. Obviously, moving from the general principle that we should do a smaller number of things well to the point of actually identifying which activities can be eliminated or curtailed is a very large step, and one that requires thorough study and wide consultation with the people involved in those activities. Nonetheless, we believe strongly enough in the principle that, if our projections are borne out and major budgetary adjustments really are necessary, we think this option must be seriously explored.

Major Maintenance. In one sense, this is really a sub-category of the previous item: just as we must consider making reductions in different areas of the operating budget, so must we consider making reductions in expenditures on large maintenance and renovations projects. Annual expenditures for major maintenance are expected to grow substantially over the next several years -- mainly as a result of the gradual aging of the buildings constructed during the 1960's -- and our projections assume an increase of approximately a million dollars per year over the current level. Because major maintenance expenditures are financed initially out of a reserve fund and charged back to the operating budget over five years, reducing the projected new level of major maintenance expenditures by $500,000 per year (from roughly $4.0 million to $3.5 million) would reduce the drain on the operating budget by only $100,000 in the first year, but that amount would grow over time to $500,000 per year. In the major maintenance area the options for reducing expenditures consist of: deferring some basic maintenance (an option which we reject as basically short-sighted and foolish), reducing the amount we spend on discretionary improvements in the plant (such as the renovation of a laboratory for a new faculty appointment or improvements in the dormitories); and reducing the amount of physical plant we need to maintain. If major budgetary adjustments need to be made, the last two of these options will have to be explored in more detail.

Salary Pools. Adjusting the allocations for salary increases from 6 1/2% per year to 6% would reduce expenditures considerably over this period. Obviously, any reduction in salary pools has serious implications for faculty and staff morale and for our ability to attract and retain the best people at all levels. Nevertheless, the Committee recognizes that well over half of the University budget goes for wages, salaries, and related personnel benefits. Therefore, should substantial budget adjustments be required, it is likely that future wage and salary policies would have to be carefully reviewed.

Student Charges. Additional revenue could be generated by increasing tuition by 9% each year, rather than the $450 assumed in the raw projections, and increasing graduate and undergraduate room and board rates by 5.5% rather than 4.5% and 3.5%. Increases of this magnitude would certainly have a real impact on many students and their families. We would assume that sufficient scholarship and fellowship resources would be provided to insulate financial aid students from the effects of these increases -- and those increases in aid were taken into account in computing the numbers shown in Table I. Nonetheless, increases of this size would represent a substantial burden for many students. Also, it is difficult to predict what effect such increases might have on the number -- and type -- of students who apply to Princeton. Again, however, we think that this is an option that will have to be considered if our projections are borne out.

All of us feel considerable discomfort with at least some of the various options mentioned above. Each of these possibilities has serious implications for at least some segment of the University community and, taken individually or in combination, for the health and vitality of the institution as a whole. Moreover, a great university must be constantly developing and changing if it

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is to remain great, and so it is not enough for us simply to stay even with inflation. New needs are constantly arising and somehow the most important of these must be addressed. Even this year we see very real needs in areas where we have not been able to recommend any increases, including a few departments where we are actually recommending reductions; we also see additional future needs in some of the areas where we are recommending increases: faculty staffing, support for research, Library acquisitions, and faculty and staff salaries, to mention just a few examples.

The actions shown in Table I are, of course, possible and the University will not collapse if they have to be implemented, but it is not -- or at least should not be -- a question of mere survival. For Princeton to truly fulfill its mission, it must sustain its excellence in all aspects of the educational program. The teaching and research programs in a university with such a mission are extremely expensive. As we struggle with the all-too-familiar limitations on resources, we must constantly ask ourselves whether the actions we are taking to balance the budget are eroding in any significant way the quality of Princeton as an educational institution, and, if we feel the answer really is yes, we must be prepared to do what is necessary to protect that quality.

We believe strongly that financial stability is essential if Princeton is to maintain its current standards of excellence over the long run. Nonetheless, the actions described in Table I also have important implications for the well-being of the institution and these must be weighed very carefully before any decisions are made. In particular, we believe that the University will have to make very difficult choices if we reach the point where one or both of these principles must be seriously compromised: the options at that point would have to include fundamental changes both in the educational process and in the management of financial resources. We plan to continue working on these complex issues over the coming months, and we expect future Priorities Committees -- and, indeed, all members of the University community -- to continue this effort.

TABLE I

Four Year Projections
Surplus (Deficit) in Thousands of Dollars

	FY79	FY80	FY81	FY82
Raw Projections	(85)	(509)	(1055)	(1892)
Possible Actions in FY80 and Beyond				
1. Programs and Activities - cuts of $750K over three years	-	250	500	750
2. Major Maintenance - reduce spending level by $500K per year	-	100	200	300
3. Salary Pools - 6% pools each year rather than 6 1/2%	-	235	501	801
4. Student Charges - increases of 9% per year in tuition and 5.5% in room and board	-	129	406	849
Total	-	714	1607	2700
Surplus (Deficit) if all these actions were implemented	(85)	205	552	808

PRINCETON UNIVERSITY

Operating Budget: Income
(in thousands of dollars)

	1976-77 Actual (1)	1977-78 Current Estimate (2)	1978-79 Projection (3)	Difference (3) - (2) (4)
1. Investment Income Used	21 244	23 308	24 964	1 656
2. Student Fees:				
a. Undergraduate Tuition	18 514	20 544	22 409	1 865
b. Graduate Tuition	5 897	6 579	7 280	701
c. Other	527	549	537	-12
Subtotal	24 938	27 672	30 226	2 554
3. Gifts & Grants (non-gov't):				
a. Sponsored Projects	2 107	2 285	2 285	--
b. Other	8 888	8 819	8 899	80
Subtotal	10 995	11 104	11 184	80
4. Federal & State Government:				
a. Sponsored Projects	52 566	61 978	66 718	4 740
b. Other	2 894	3 050	3 133	83
Subtotal	55 460	65 028	69 851	4 823
5. Auxiliary Activities:				
a. Athletics	655	632	638	6
b. Dorm. & Food Services	9 265	9 855	10 217	362
c. Rental Housing	2 772	2 957	3 127	170
d. Other Income	2 266	1 951	2 627	676
Subtotal	14 958	15 395	16 609	1 214
6. Service Departments:				
a. Computer Center	2 959	3 105	3 168	63
b. Other	2 148	2 421	2 564	143
Subtotal	5 107	5 526	5 732	206
TOTAL	132 702	148 033	158 566	10 533
Less Interdepartmental Transactions	5 932	6 150	6 553	403
GRAND TOTAL	126 770	141 883	152 013	10 130
Summary of Sponsored Projects:				
a. Direct Costs	47 565	56 911	60 811	3 900
b. Indirect Cost Reimbursements	7 108	7 352	8 192	840
Total	54 673	64 263	69 003	4 740

PRINCETON UNIVERSITY

Operating Budget: Expenditures
(in thousands of dollars)

		1976-77 Actual (1)	1977-78 Current Estimate (2)	1978-79 Recommendation (3)	Difference (3) - (2) (4)
1.	Academic Departments and Programs:				
	a. Instructional Costs				
	1. Faculty, academic year	14 835	15 904	16 161	257
	2. Teaching Assistants	1 853	1 945	2 027	82
	b. Other salaries, expenses and benefits	24 956	26 089	26 776	687
	Subtotal	41 644	43 938	44 964	1 026
2.	Plasma Physics Laboratory	32 821	41 521	44 921	3 400
3.	Undergraduate Scholarships	4 391	4 743	5 304	561
4.	Graduate Fellowships:				
	a. University Fellowships	2 583	3 046	3 261	215
	b. Other Fellowships	1 858	1 833	1 871	38
	Subtotal	4 441	4 879	5 132	253
5.	Other Student Aid and Miscellaneous Fellowships	859	859	859	--
6.	Central University Services:				
	a. Library	5 919	6 797	7 002	205
	b. Computer Center	2 752	2 647	2 694	47
	c. Security	1 503	1 700	1 679	-21
	d. Other	2 401	2 808	2 855	47
	Subtotal	12 575	13 952	14 230	278
7.	Administration:				
	a. Academic Administration and Student Services	4 871	5 105	5 091	-14
	b. General Administration and Expenses	6 007	6 478	6 582	104
	Subtotal	10 878	11 583	11 673	90
8.	Athletics	2 038	2 118	2 165	47
9.	Physical Facilities	20 861	22 332	23 204	872
10.	Transfer to Reserve for Renewal and Replacement	2 159	2 504	2 721	217
11.	Salary Increases (incl benefits)	--	--	3 278	3 278
12.	Allowance for Contingencies	--	100	200	100
	TOTAL	132 667	148 529	158 651	10 122
Less	Interdepartmental Transactions	5 932	6 150	6 553	403
	GRAND TOTAL	126 735	142 379	152 098	9 719
13.	Estimated Income	126 770	141 883	152 013	
14.	Surplus or (deficit)	35	(496)	(85)	

Notes to Summary Tables

GENERAL NOTE: Some of the lines of these summary tables have been discussed in detail in the report proper, and no attempt will be made here to summarize information which appears elsewhere.

Income

1. Investment Income Used. This represents the dividend and interest income from investments, mainly the University's Endowment. The increase here is mainly attributable to a projected increase in the income per unit in the primary investment pool. The figure also reflects recent and projected new additions to the endowment.

3. Gifts and Grants (non-government). The increase in other gifts and grants primarily reflects the addition of several term professorships and higher levels of support for student aid. This line includes the Annual Giving campaign on a cash-received basis.

4. Federal and State Government. Most of the increase for sponsored projects is for the direct operating expenses of the Plasma Physics Laboratory. Other direct sponsored expenditures are expected to increase at approximately the rate of inflation. Increases in non-PPL indirect cost collections reflect both the increase associated with higher direct sponsored expenditures and the recommended increase in the indirect cost rate. The increase in other government support is for student aid, where a decrease for graduate student fellowships is more than offset by an increase for undergraduate scholarships.

5. Auxiliary Activities. Most of these activities are discussed in detail in the report. The increase in "other" auxiliary activity income is primarily due to the Princeton Forrestal Center and special events.

6. Service Departments. The increase in Computer Center income is mainly due to greater general funds use of interactive computing. The "other" category includes income from machine shops and from printing and duplicating services.

Expenditures

1. Academic Departments. In addition to the general fund additions recommended in the report, the faculty line reflects recent additions funded by restricted endowments and term gifts. Teaching Assistant costs increase with tuition. The increase in other salaries, expenses, and benefits is due mainly to a higher estimated level of sponsored research, and to inflationary increases in general operating expenses.

2. Plasma Physics Laboratory. Increase represents higher government-funded direct operating expenses.

5. Other Student Aid and Miscellaneous Fellowships. This line includes miscellaneous awards (prizes, post-doctoral fellowships and the like). None of these items use general funds.

6. Central University Services. The "other" category here includes the machine shops, stockrooms, occupational health and safety, mail and telephone services, printing and duplication services, and administrative data processing.

10. Transfer to Reserve for Renewal and Replacement. This line reflects the costs of major maintenance and capital equipment. Contributions are determined by a formula using a five-year moving average of actual expenditures from the reserve. The increase here reflects higher expenditures for major maintenance in recent years.

Appendix B

Principal assumptions Used to derive Raw Budget Projections for FY80, FY81, and FY82

General Assumptions

Undergraduate enrollment remains at approximately the expected FY79 level of 4440. Graduate enrollment decreases by approximately 40 students by FY82 to approximately 1400. Faculty and supporting staffs remain at their FY79 recommended levels. General operating expense inflation is 5 1/2%. Undergraduate admission offers continue to be made without regard for financial need. Service functions are maintained at minimal levels for preservation of the physical plant.

Specific Income Assumptions

Investment Income Used - Income per unit in the primary investment pool increases 6% per year. Additions to principal amount to $7 million each year with three-quarters of the income being used to relieve general funds in subsequent years. Higher investment management costs are fully reflected beginning in FY80.

Tuition and Fees - Tuition increases $450 per year for both graduate and undergraduate students. Room and board charges increase 3 1/2% per year for undergraduates and 4 1/2% per year for graduate students.

Contracts & Grants for Sponsored Projects - Sponsored project direct costs increase in line with general inflation and salary increases except for the Plasma Physics Laboratory, which increases at a slightly faster rate. Indirect cost recoveries on non-PPL projects increase in proportion to direct costs. All projects which pay full indirect costs will be at the recommended 64% rate by FY80 and will continue at that rate through FY82.

Other Gifts & Grants - Annual Giving increases in line with inflation. All major term grants or the equivalent are expected to be replaced and $50 thousand of new gifts relieving general funds will be added each year.

Auxiliary & Service Operations - Faculty and staff rents increase 6% per year. Married graduate student housing rents increase 4 1/2% per year. Computer Center rates rise 5% per year, but the amount of computer time used by PPL drops significantly. Cash food prices increase 5% per year. Other service rates increase 6 1/4% per year. Income from commercial rental properties, Princeton Forrestal Center, and special events increase in total by approximately 4% per year.

Specific Expenditure Assumptions

Undergraduate Financial Aid - Expenditures increase as tuition, room and board, and other expenses increase. The loan expectation increases $50 per year. Income from employment during the summer and the academic year increases only to the extent that wage rates increase.

Graduate Student Support - The number of students receiving fellowships from government and other outside sources remains approximately constant through FY82, with support of students on University fellowships decreasing in accordance with the plan being recommended for 1978-79.

Library - General funds for acquisitions increase at a rate sufficient to keep total acquisitions from all funds growing 10% per year. Projected savings of $60 thousand in FY80 (as recommended by earlier provisional plans) are assumed to be achieved and then maintained in FY80, FY81, and FY82.

Physical Facilities - Energy prices increase as follows: a) The natural gas base rate increases 12% per year; b) Fuel oil prices increase 5% in FY80 and 10% in FY81 and FY82; c) Electricity rates increase 10% per year. Energy consumption assumes a continued conservation program adjusted for a 3% annual increase in electricity used. Some plant improvements are financed with long-term U.S. Government loans. Energy savings resulting from capital investments are reflected. Utility plant major maintenance costs increase approximately 12% per year. Taxes and sewer charges increase approximately 5% per year.

Transfer to Reserve for Renewal & Replacement - Transfers increase approximately 8.5% per year reflecting the impact of increasingly large major maintenance expenditures experienced in recent years and projected for FY79, FY80, and FY81.

Personnel Benefits Costs - The average personnel benefit rate increases by one-half percentage point per year in FY80, FY81, and FY82 reflecting the estimated impact of higher social security tax rates and wage bases.

Salary Increases - A salary pool of approximately 6 1/2% is provided each year. Assistants in instruction receive a $200 increase in FY80.

APPENDIX C

Princeton University: DEPARTMENT - Office of the Provost

TO Members of the Council of the Princeton University Community

DATE November 7, 1977

SUBJECT Report From the Priorities Committee

FROM Provost Neil Rudenstine

INTER-OFFICE CORRESPONDENCE

As you may know, the Priorities Committee is currently in the midst of the budget review process. The Committee has not yet formulated any recommendations, even tentative ones, for next year's budget, and will not be in a position to do so until mid-December. It is difficult, therefore, to give a substantial "progress" report, but it might be helpful for us to describe, at least briefly, where we are in our review, and what the budget prospects seem to be.

We are now receiving and calculating individual budget requests from the major budgetary units. We receive written reports from the persons directly responsible for these units and, in most cases, we meet with the responsible University officer to discuss requests and to develop a detailed view of the needs in that particular area. We also use these meetings to explore the consequences of possible budget reductions, so that we can weigh the relative importance of different requests when we begin formulating our final recommendations in December and January. A copy of our meeting schedule is attached to this report.

Also attached to this report is a budget summary showing the actual results for last year, an updated budget estimate for the current year, and a preliminary projection for 1978-79. The 1978-79 projection is based on the best information now available, and it indicates what would happen to the University budget next year if we implemented all the policy decisions embedded in the current provisional plan. This provisional plan was developed by last year's Committee, and it is summarized in the Committee's January report. In particular, the provisional plan assumes the following:

1) The size of the faculty and the various administrative and other staffs will remain roughly constant at their authorized 1977-78 levels.

2) The pool for salary increases will be equal to 6.5% of the salaries of continuing employees.

3) Tuition will be increased by $350 at both the graduate and undergraduate levels, to $5100 and $5000 respectively.

4) Room and board charges will be increased by 5.5% (about $112) at the undergraduate level and 6% at the Graduate College; rents in faculty and staff and married graduate student apartments will be increased by 6%.

All of the detailed assumptions are outlined on pages 32-36 of last year's report.

As the attached table indicates, our overall financial situation has worsened since last January. We now expect that full adherence to the provisional plan would result in a sizable deficit for 1978-79 -- almost $600,000. This projection obviously makes the job of the Priorities Committee more difficult as we seek to recommend a set of actions to achieve a balanced budget. It should be noted, moreover, that there are several pressing needs which have emerged since last January and, by and large, these needs are not provided for in the provisional plan. Just one example of these is the increase in library acquisitions recommended by last year's special faculty committee on this subject. In short, the task of the Priorities Committee will be complex, and the Committee will certainly be looking for ways to reduce expenses and to increase income beyond the levels contemplated in the provisional plan, even as it also tries to address the pressing needs of some programs which appear to require additional assistance.

NR/eb
Attachments

Neil Rudenstine

PRIORITIES COMMITTEE SCHEDULE - FALL, 1977

Date	Time	Topic	Invited Guests (Preliminary List)
October 18	4:00 p.m.	Budget Update Tuition and Student Charges	
October 20	12:00 (lunch)	Meeting with Trustees	
October 27	4:00 p.m.	Administration/Central Services	A. J. Maruca (V.P. Administrative Affairs)
November 1	4:00 p.m.	Library	Richard Boss (University Librarian)
November 8	4:00 p.m.	Computer Center	James Poage (Director, Computer Center)
		McCarter Theatre Athletics	
November 14	8:00 p.m.	Faculty Staffing	Aaron Lemonick (Dean of the Faculty)
November 15	4:00 p.m.	Physical Planning and Facilities	John Moran (V.P. Facilities)
		Plant	Eugene McPartland (General Manager, Plant)
		Food Services, Housing	John Feldkamp (General Manager, Services)
November 18	9:30 a.m. (in N.Y.C.)	Meeting of Priorities Committee Delegation with Trustee Subcommittee on Policy and Budget	
November 21	4:00 p.m.	Graduate Student Support	Nina Garsoian (Dean of the Graduate School)
November 22	4:00 p.m.	Undergraduate Financial Aid	Joan Girgus (Dean of the College) and Don Betterton (Director, Undergraduate Financial Aid)

Date	Time	Topic	Invited Guests (Preliminary List)
November 28	4:00 p.m.	Faculty and Staff Salary Pools	Aaron Lemonick (Dean of the Faculty) and A. J. Maruca (V. P. Administrative Affairs)
November 29	4:00 p.m.	Research Support	Robert May (Chairman, University Research Board)
December 5	8:00 p.m.	Review of summaries/ tentative recommendations/ provisional plan	
December 6	4:00 p.m.		
December 12	4:00 p.m.		
December 13	4:00 p.m.		
January 3	4:00 p.m.	Final recommendations/ review of draft report	
January 4	4:00 p.m.		
January 5	4:00 p.m.		
January 6	4:00 p.m.		

10/25/77

PRINCETON UNIVERSITY

Operating Budget: Expenditures
(in thousands of dollars)

		1976-77 Actual (1)	1977-78 Current Estimate (2)	1978-79 Projection (3)	Difference (3) - (2) (4)
1.	Academic Departments and Programs:				
	a. Instructional Costs				
	1. Faculty, academic year	14 835	15 860	15 860	--
	2. Teaching Assistants	1 853	1 993	2 071	78
	b. Other salaries, expenses and benefits	24 956	26 152	27 484	1 332
	Subtotal	41 644	44 005	45 415	1 410
2.	Plasma Physics Laboratory	32 821	41 521	44 921	3 400
3.	Undergraduate Scholarships	4 391	4 908	5 249	341
4.	Graduate Fellowships:				
	a. University Fellowships	2 583	2 817	2 983	166
	b. Other Fellowships	1 858	1 870	1 965	95
	Subtotal	4 441	4 687	4 948	261
5.	Other Student Aid and Miscellaneous Fellowships	859	859	859	--
6.	Central University Services:				
	a. Library	5 919	6 689	6 838	149
	b. Computer Center	2 752	2 647	2 735	88
	c. Security	1 503	1 700	1 704	4
	d. Other	2 401	2 783	2 824	41
	Subtotal	12 575	13 819	14 101	282
7.	Administration:				
	a. Academic Administration and Student Services	4 871	5 069	5 117	48
	b. General Administration and Expenses	6 007	6 405	6 495	90
	Subtotal	10 878	11 474	11 612	138
8.	Athletics	2 038	2 118	2 153	35
9.	Physical Facilities	20 861	22 395	23 315	920
10.	Transfer to Reserve for Renewal and Replacement	2 159	2 504	2 721	217
11.	Salary Increases (incl benefits)	--	--	3 061	3 061
12.	Allowance for Contingencies	--	200	200	--
	TOTAL	132 667	148 490	158 555	10 065
Less	Interdepartmental Transactions	5 932	5 975	6 363	388
	GRAND TOTAL	126 735	142 515	152 192	9 677
13.	Estimated Income	126 770	142 159	151 618	
14.	Surplus or (deficit)	35	(356)	(574)	

10/25/77

PRINCETON UNIVERSITY

Operating Budget: Income
(in thousands of dollars)

	1976-77 Actual (1)	1977-78 Current Estimate (2)	1978-79 Projection (3)	Difference (3) - (2) (4)
1. Investment Income Used	21 244	23 338	24 454	1 116
2. Student Fees:				
a. Undergraduate Tuition	18 514	20 525	21 920	1 395
b. Graduate Tuition	5 897	6 479	6 951	472
c. Other	527	531	535	4
Subtotal	24 938	27 535	29 406	1 871
3. Gifts & Grants (non-gov't):				
a. Sponsored Projects	2 107	2 165	2 285	120
b. Other	8 888	8 785	8 894	109
Subtotal	10 995	10 950	11 179	229
4. Federal & State Government:				
a. Sponsored Projects	52 566	62 478	67 428	4 950
b. Other	2 894	2 960	3 148	188
Subtotal	55 460	65 438	70 576	5 138
. Auxiliary Activities:				
a. Athletics	655	631	638	7
b. Dorm. & Food Services	9 265	10 011	10 526	515
c. Rental Housing	2 772	2 957	3 100	143
d. Other Income	2 266	1 776	2 422	646
Subtotal	14 958	15 375	16 686	1 311
6. Service Departments:				
a. Computer Center	2 959	3 030	3 058	28
b. Other	2 148	2 468	2 622	154
Subtotal	5 107	5 498	5 680	182
TOTAL	132 702	148 134	157 981	9 847
Less Interdepartmental Transactions	5 932	5 975	6 363	388
GRAND TOTAL	126 770	142 159	151 618	9 459
Summary of Sponsored Projects:				
a. Direct Costs	47 565	57 111	61 411	4 300
b. Indirect Cost Reimbursements	7 108	7 532	8 302	770
Total	54 673	64 643	69 713	5 070

APPENDIX D

Princeton University: DEPARTMENT Provost

To The Council of the Princeton University Community

DATE December 15, 1977

SUBJECT Report from the Priorities Committee

FROM N. L. Rudenstine

INTER-OFFICE CORRESPONDENCE

The purpose of this report is to describe briefly the work of the Priorities Committee up to now and to outline some of the major recommendations that we have tentatively agreed upon. I want to emphasize that the Committee is still working and will be meeting again in early January to review its preliminary conclusions, and to prepare a final report to the President. At that time, we will be able to see how the set of tentative decisions reached this past week would relate to a four-year provisional plan. Some of our recommendations might have to be changed in the light of projections for future years. Still, we do not expect that there will be very significant changes in many, if any, of the major recommendations, and it would therefore be helpful to review our tentative recommendations with the CPUC at this time. We will, of course, be issuing a final report to the President in January and we would hope to discuss that report with the CPUC at its January meeting.

Before discussing the Committee's specific recommendations, let me first bring the Council up to date on the developments since our last report to you in November. At that time we were projecting a deficit for the current year (1977-78) of $356,000 and a deficit for 1978-79 of approximately $574,000, if we were to follow the major assumptions of the provisional plan. Since then, however, we have carefully reviewed the budgetary assumptions one more time and, based on our new estimates for sponsored research, outside fellowship support for graduate students, and other important variables, we have revised our estimates of these deficits upward by something in excess of $100,000. For the 1978-79 budget then, the Committee started with a projected deficit of approximately $700,000, even before taking into account any requests for budget increases. Those requests, moreover, totalled almost a million dollars so that we had to find some combination of recommended actions that could take us as far as possible toward erasing a deficit figure of more than one-and-a-half million dollars. Such potential actions include turning down or reducing requests in some areas, making actual reductions in other areas, and increasing income wherever possible.

The Committee's tentative recommendations would, if all our current projections are sustained, leave us with a small deficit in 1978-79, something in the $50,000-$100,000 range. Given the actions we are recommending, we now believe that an interim deficit of this dimension is acceptable for next year, but we will clearly have to review this conclusion - and our specific recommendations - again in January when we see what the four-year projections reveal. We certainly do not believe that Princeton can run continuing deficits, and our plan is to get back to a balanced budget.

Granted these very serious financial constraints, we are nonetheless recommending some actions designed to strengthen a few crucial aspects of the University's educational program. The Committee has been persuaded that even modest increases, however difficult they might be in the present economic situation, would make a significant difference. In particular, we recommend:

- the addition of approximately four full-time positions (FTE's) to the faculty, in order to help ease the unusual enrollment pressures in some of our most heavily enrolled departments.

- the addition of something in the $50,000-$100,000 range for Library acquisitions and other Library needs. (This increase would be in addition to the approximately $120,000 that will be available as the result of a Trustee decision to allocate funds from the recent capital campaign as endowment for Library acquisitions.)

- the return of the equivalent of two percentage points on the indirect cost pool (about $180,000) to the departments which are most active in sponsored research and, consequently, most apt to experience difficulties as a result of a rise in the indirect cost rate. This recommendation for a research fund will be accompanied by a recommendation that the indirect cost rate be increased from 52% to 64%. Both of these recommendations were contained in a report forwarded to us by the University Research Board.

- the allocation of $50,000-$100,000 in additional funds for the salary pool to address the general problem of faculty salaries. This amount is meant to supplement the money already available as a result of an earlier Trustee allocation of endowment funds to address the problem of salaries for junior faculty, but might be partially offset by a very slight reduction (probably less than a quarter of a point) in the overall salary pool below the 6 1/2% envisioned in the provisional plan. In the past few years, there have been a number of special allocations to help supplement staff salaries; this year, the Committee strongly believes that a similar allocation must be made for at least some groups of faculty.

In some respects, the Committee's task would have been made easier if we had decided, in a difficult budget year, not to grant any requests for increases. But we concluded that the actions outlined above were extremely important, and should not be foregone. In order to offset these increases, then, and to eliminate the $700,000 deficit we started with, we expect to recommend budget reductions in a number of supporting service and administrative areas. In particular, our tentative recommendations call for some reductions in the Computer Center and in the administrative budgets of academic departments, and somewhat larger reductions in the overall budgets for central administration and the various Facilities departments (Food Services, Building Services, Physical Plant, etc.). Although some of these areas have experienced increases in the last year or two, reductions from the current levels will still involve some curtailment of services. Discussions are still continuing in order to identify exactly where these reductions will come.

We also expect to recommend increases in student charges - tuition, room and board - somewhat higher than those envisioned in the provisional plan. For undergraduates we expect to recommend an increase in total charges approximately $60-$90 above the $460 called for in the provisional plan ($350 in tuition plus 5.5% in room and board); for graduate students, there will be comparable increases in tuition, room and board rates at the Graduate College, and rents at the Butler and Lawrence apartments. The Committee has not finally determined the exact levels of all these increases, or their distribution amongst tuition, room and board rates.

While we feel that we must recommend increases in student charges, we are also recommending correlative increases in financial aid. On the undergraduate side, we believe that Princeton should continue to meet fully the needs of all financial aid students, as those needs are defined by the College Scholarship Service. While additional scholarship dollars will be allocated to offset fee increases for students with financial need, some modest increase in the loan expectation also appears likely. The graduate student support picture is, of course, somewhat different from that of undergraduates. We believe that the current fellowship policies should in principle be continued, but given the higher-than-anticipated number of University Fellows in the current first-year class, we believe that a somewhat leaner mix of fellowships is necessary for next year's entering class. We are in the process now of reviewing various fellowship mixes with the Dean of the Graduate School.

Because of time constraints, this written report has not been reviewed with the full Priorities Committee, but I believe it reflects fairly accurately our general sense of the situation. Our complete report will be available in January and it will describe our final recommendations in detail, as well as the rationale for our conclusions.

Neil Rudenstine

N. L. Rudenstine

NLR/jl

PRINCETON UNIVERSITY

REPORT OF THE PRIORITIES COMMITTEE TO THE PRESIDENT

Recommendations Concerning the Budget for 1979-80

January 8, 1979

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A. Summary Tables: Income and Expenditures

B. Projections for 1980-81 and Beyond: List of Assumptions

C. Provost's Report to the CPUC: December 18, 1978

INTRODUCTION

The Priorities Committee is one of the six charter committees of the Council of the Princeton University Community. As stipulated in the charter of the CPUC, the Committee has sixteen regular members: three administrative officers serving ex officio (the Provost, who serves as chairman of the Committee; the Dean of the Faculty; and the Financial Vice President and Treasurer); six members of the faculty, including at least one from each of the four academic divisions and at least one non-tenured member; four undergraduate students; two graduate students; and one representative of other groups on the Council (the professional library staff in the case of this year's Committee).

Procedurally, the Committee operated this year in much the same way that it has in previous years. The Committee began meeting regularly in October and continued at roughly a twice-a-week pace until Christmas vacation. The sessions in October and November were devoted mainly to reviewing requests from individual budgetary units. The University officers responsible for the major budgetary units prepared budget requests for us, and then, in most cases, met with the Committee to discuss those requests. As always, the Committee reached very few firm conclusions during this period, preferring instead to wait until we had seen all the requests before deciding about any one of them. In December we reviewed the budget projections again, reestimating all those components which are not under our control and adding up all the requests. The rest of that month was spent looking again at the individual budgetary units, trying to see where reductions could be made and where increases seemed absolutely essential. In view of the fact that the general economic picture -- including future indicators -- looked so somber, our Chairman stressed the importance of achieving a balanced budget for 1979-80. The result of all our discussions, then, was a tentative set of recommendations, arrived at in late December, which does produce a balanced budget for next year. The Committee then reassembled in January to review these tentative recommendations in the context of a four-year budgetary projection. Those projections -- and the possible courses of action that might be followed to deal with the problems shown there -- were discussed and the results of those discussions were incorporated into this final report.

This year's Committee believes, as did its predecessors, that it is important to maintain communication between the Committee and the wider University community. While the privacy of the Committee's own working sessions is essential, we feel the need to seek the views of other members of the University community, both on specific budgetary problems and on more general priorities for the University. To facilitate this communication, we again made available to the campus press and to the general University community (through the Firestone Reserve Room) the written budgetary presentations that were prepared for the Committee. We think this procedure worked quite well and we hope future Committees will continue to make available to the community as much of this written material as possible.

Again this year we have tried to provide more detailed reports to the CPUC (and thus, through the Daily Princetonian and other channels of communication, to the wider University community) while the work of the Committee was still in progress. In particular, the Provost reported to the CPUC in November on the changes in the budgetary situation since the Priorities Committee report of the previous January and indicated the process that the Priorities Committee was following in trying to deal with those changes. In December the Provost submitted a brief written report describing the tentative recommendations reached by the Committee at that stage of its deliberations. (That document is attached as Appendix C of this report.) Again, it was extremely helpful for the Committee, and we think for the wider community as well, for us to make reports of this kind, and we hope they will be continued in the future.

In addition to these more formal means of communication, we benefited from several informal meetings with members of the University community. We also sponsored a public meeting to which members of the University community were invited in order to discuss with us the University's financial situation and priorities; that session was well attended, and the students, faculty, and staff who were present represented a wide range of views on several subjects. Finally, we had two very helpful meetings with members of the Board of Trustees, specifically the Finance Committee of the Board and its Policy and Budget Subcommittee, and we think that all of us benefited from this early exchange of views.

The purpose of the Committee is to advise the President on matters that affect the making of the budget for the succeeding fiscal year and on longer-range plans for resource allocation. We understand, as should all members of the University community, that the Committee's role is purely advisory and the weight given by the President and the Board of Trustees to our report depends on the force of the arguments presented there and on the quality of our recommendations. The Committee has neither the time nor the expertise to undertake a detailed line-by-line review of the budget or to involve itself in the day-to-day management of the University, and we gratefully leave those tasks to others. Our role is to make recommendations about the major parameters of the budget that establish, in a broad way, the priorities which govern the use of University resources. The remaining sections of this report describe those recommendations in detail for 1979-80 and outline some of the problems that we think will need to be addressed more fully in 1980 and beyond.

As always, the Committee wishes to express its appreciation to all those members of the University community who have participated in the budget process. We want especially to thank those people who prepared material for the Committee or met with us to discuss particular budgets or budgetary issues. The Committee has profited enormously from their expert assistance and, in particular, from their openness and candor in discussing what were often complex and sensitive issues. We want also to thank all those members of the University community who shared their opinions and suggestions with us at various stages of this process, either at our public meeting or through more informal channels.

The Committee has also benefited from the contributions of those individuals who have met regularly with us, either at the suggestion of the Executive Committee of the CPUC or as stipulated in the Charter of the Council: Henry E. Bessire, Vice President for Development; Anthony J. Maruca, Vice President for Administrative Affairs; and Richard R. Spies, Associate Provost and the executive secretary of the Committee. We are also indebted to Christopher McCrudden and Craig A. Richmond, who shared the duties of recording secretary for the Committee and, more importantly, kept track of all the numbers and prepared much of the budget material used by the Committee.

Finally, we should point out that this report is being submitted with our unanimous support. Although each of us might prefer to see one or more of the specific recommendations changed in some respect, the differences among us are few. We all endorse the overall set of recommendations described in this report and the general statements of principle and policy used to explain those recommendations.

Theresa D. Bailey '79
Douglas S. Brown '79
W. Robert Connor, Professor of Classics
Stephen B. Davis '79
Earl Dowell, Professor of Mechanical and Aerospace Engineering
Harold D. Elish '80
Stephen M. Goldfeld, Professor of Economics
John Kratsios GS
Raju Kucherlapati, Assistant Professor of Biochemical Sciences
Aaron Lemonick, Dean of the Faculty

Annmarie Levins GS
Marilyn McCully, Assistant Professor of Art and Archaeology
Suzanne McNatt, Professional Library Staff
Carl W. Schafer, Financial Vice President & Treasurer
David T. Wilkinson, Professor of Physics
Neil L. Rudenstine, Provost (Chairman)

I. THE ECONOMIC CLIMATE

More often than not in recent years, the Priorities Committee has begun its annual report to the President by pointing out the difficulty of the University's financial situation. In most years the Committee indicated that, while it was possible to project a balanced budget, it was also essential that the University continue to reduce expenditures and raise charges. Moreover, as we have seen, even an austere set of budget projections can be affected severely by unforeseen changes such as sudden increases in the prices of food or fuel. Consequently, while Princeton has remained extremely sound from an overall financial point of view, it has maintained a generally balanced position only by holding to a regimen of rigorous self-discipline and has experienced some deficits since 1970.

This year is no different in that regard. Although we are projecting a balanced budget for 1979-80, the signs for the future are not promising. We have developed some projections of the budget for the years beyond 1979-80 (described in Chapter III of this report), and those projections indicate that new budget deficits will develop unless further actions are taken. In addition, the discussion of our specific recommendations for 1979-80 (Chapter II) makes reference in several places to unmet needs in different areas of the University, and those needs are likely to grow in the future.

Clearly, the financial problems that were effectively addressed in the early 1970s, and again after the oil embargo of 1973-74 and the subsequent price increases for all forms of energy, have not been permanently solved: even a very cursory examination of the budget shows that the inflation rates driving up many categories of basic expenditures -- fuel, library acquisitions, medical insurance and other employee benefits, for example -- have consistently, and significantly, outstripped the rate at which our major sources of income are rising. Under these circumstances (with several large categories of expenditures growing at 10% or more each year, and most income components growing at a much slower rate), it is not surprising that we must constantly find new ways to reduce expenses or generate new income.

A few examples may help to illustrate this general point. The total energy bill for the University -- for heating oil, natural gas, and electricity -- will be approximately $4.2 million in 1978-79; in 1972-73 the cost of the same items was only $1.7 million. Since 1972-73, then, the total cost of energy has risen at a rate of more than 16% per year, even while the actual consumption of energy has dropped by more than 25%.

On the revenue side of the budget, there is no major income component that has increased at anything like 16% per year since 1972-73. Earnings on the endowment have increased approximately 5.5% per year since 1972-73. Government support of research has also increased about 5.5% per year. Increases in the University's highly successful Annual Giving campaigns have averaged approximately 6%. Even tuition increases -- the largest component of income directly under the University's control -- have averaged only 9%.

While energy prices have certainly been unusual in their rate of increase during recent years, several other components of the University budget have also increased very rapidly, and are outpacing the growth in revenues. This predicament, moreover, is characteristic of most colleges and universities in America today: indeed, Princeton is in general rather better off than most of its sister institutions, both because it enjoys a generous level of alumni and other support, and because it has husbanded its resources well.

Is there a solution to the economic dilemma which confronts Princeton and essentially all other institutions of higher education? Clearly, no one action or simple remedy can be expected to solve a problem that is highly complex, and that has its origins -- to a considerable extent -- in the "handicraft" nature of education itself; preserving our financial stability will almost certainly require both a reduction in expenditures and the development of new income sources.

One crucial component of any solution must lie in the University's efforts to find new outside sources of support for its existing programs, as well as for new ventures. Unfortunately, however, the 1970s has been a decade in which funding for many fundamental activities -- such as basic research in the sciences and engineering -- has tended to diminish rather than increase. At Princeton, for example, we estimate that the real (i.e., inflation-adjusted) level of research -- excluding the special case of the Plasma Physics Laboratory -- has dropped by more than 35% since 1967-68. Moreover, this support is now spread more thinly over a larger number of fields, and the process for attaining support has steadily become more time-consuming and bureaucratic. While Princeton faculty members have continued to maintain an extraordinary record of success in attracting research grants, the number of applications that must be submitted in order to obtain the required support has risen steadily, as the average size of the grants awarded has fallen. Nonetheless, in spite of this discouraging pattern, the effort to gain additional support for research is -- and must be -- intensive and continuous.

Equally crucial are the current efforts to find increased financial aid resources for students at both the graduate and undergraduate levels. While the federal and state governments have recently made important contributions to help undergraduates, these programs will require even greater funding if the real value of scholarships and fellowships is to be protected from erosion by inflation. Without steady help of this kind, it will become more and more difficult for individual institutions -- especially the private colleges and universities -- to maintain the substantial aid programs they have developed in order to insure access to low-income and middle-income students. The cost of Princeton's student aid programs has been rising rapidly in recent years and, given all the other pressures on our scarce resources, it would be very difficult for the University to maintain its commitment to the current financial aid programs without substantial external support.

While support for undergraduate student aid has increased in recent years, the opposite has been true at the graduate level. In 1969-70, for example, there were 798 Princeton graduate students supported by outside fellowships (primarily government and foundation grants); this year there are only 317. While the aggregate need for new Ph. D. 's has unquestionably declined -- and will continue to decline throughout the 1980s -- it is essential to maintain a number of small-scale, high-quality graduate programs on a national level. Without increased external support, however, it will be increasingly difficult for universities such as Princeton to absorb and sustain the high cost of graduate studies across the span of the liberal arts and sciences.

Substantial assistance from government, industry, and foundations will be critical, therefore, in the years to come. However, Princeton and other private universities will have to depend equally heavily upon the traditional support of alumni and other friends if they are to maintain, not simply the academic quality and fiscal soundness of their institutions, but also their positions of independence. That independence has never been more vital than at present. It can be powerfully maintained at Princeton in the years ahead, but only if the unusual successes of our recent Annual Giving and development programs continue. At the moment, Annual Giving and endowment earnings (the result of past gifts of alumni and other friends of the University) account for more than $30 million of income each year -- approximately 30% of the University budget excluding the Plasma Physics Laboratory. In the future, that level of support, already extremely generous, will have to rise if we are to preserve Princeton's quality and independence. In this respect, the outline of University-wide needs, which was given general approval by the Trustees this October, represents absolutely essential goals for the 1980s. Those goals focus primarily upon providing significant endowment and other funds to insure the high quality of the University's basic educational program and include support for only a very limited number of new ventures. No enterprise is as crucial to the future of the University as the success of its ongoing development activities, whose primary objective is to undergird the ability of the University to achieve its central purposes.

New sources of income, both public and private, must be found, then, if the University is to maintain its basic long-run financial equilibrium. In the meantime, however, we must also be prepared to cope with immediate financial problems and strains since even modest budget deficits require the expenditure of some capital funds that could otherwise function as endowment. Spending such capital resources not only reduces the base of income-earning assets, it also makes the job of raising new endowment more difficult: potential donors are understandably much more responsive when they have confidence that the funds they provide will be managed prudently and the income will be spent wisely.

In addition to searching for new sources of income, then, the University must continue to pare back expenditures to a level that can be supported by our current income sources. If budget cutting is essential -- and we have concluded that it is -- we are persuaded that it is better to reduce programs and services selectively, rather than cutting all -- or nearly all -- activities by some uniform percentage. To a limited extent, it is possible, at times even preferable, to squeeze all budgets across the board when cutbacks are necessary: in most circumstances, the budget of nearly every department and activity can stand at least some trimming, and general reductions in budget allocations can lead to greater efficiencies. At this point, however, after almost ten years of steady budget squeezing, we think that further across-the-board reductions would be counterproductive.

Instead, we believe, as have previous Priorities Committees, that it is generally preferable to reduce the actual number of programs or services rather than letting all the University's activities slip toward mediocrity. Consequently, beginning this spring we recommend that the Provost and other University officers, consulting with this and other committees as appropriate, undertake a comprehensive review of our programs, services, and departments in order to identify sensible ways of selectively reducing our budget base in future years. Unless that base can be reduced significantly over the next few years, all of our programs and services will continue to be battered by inflationary increases in costs, and the problems we are unable to solve today will only multiply and worsen. This is the approach that Princeton has generally followed in the past when dealing with budgetary problems, and we believe that it makes even more sense today.

It is never very much consolation in difficult times to know that the problems of other institutions are even worse than one's own: the actions we are recommending, to say nothing of the actions that may be necessary in future years, will not feel less painful simply because many other universities are being forced to take even more drastic actions. In another sense, however, there is some comfort in the fact that Princeton's problems are not unique, and indeed are much less serious than those of most other universities. The fact that all universities share in a general fate gives some hope that the problems of higher education will be more effectively addressed in a comprehensive way on a national level.

II. RECOMMENDATIONS FOR 1979-80

The deficit for the current year (1978-79) is now projected at $506,000, up from the $85,000 deficit projected last January. As we look forward to next year, we find ourselves faced with an extremely difficult situation: part of this year's deficit will carry over into the future, while inflation will continue to drive up costs at a very rapid rate. Moreover, the Priorities Committee was presented with more than $2 million in new requests over the course of the fall. Almost all of these requests seemed to us to represent real needs, and a number of them seemed quite urgent, making this one of the most difficult years in the ten-year history of the Priorities Committee.

The budget we are recommending for 1979-80 is balanced, albeit precariously so. We have been able to achieve this result, however, only by turning down all but a very few of the many requests we reviewed, no matter how worthy those requests may have seemed on their individual merits. Indeed, we have been able to recommend increases only in those few critical areas which in our judgment require immediate attention. To have chosen a different approach -- trying, for example, to provide some gesture of support for a larger number of areas -- would simply have resulted in a series of essentially ineffectual decisions. In our view, it seems far better to try to make a measurable difference in a few areas, rather than running the risk of dissipating our resources by spreading them too thinly across the board.

We recognize, however, that the additional allocations we are in fact recommending are extraordinarily modest, and that there are important needs which cannot be met at this time. In some areas, such as graduate student aid, support of research, and the size of the faculty, we have had to defer or deny requests for additional resources; in other areas, such as salaries, undergraduate student aid, and the physical plant, we have had to allocate less than most of us believe is desirable. In both categories, we believe there are clear needs which should not be deferred indefinitely. If these needs are not addressed at some point, we risk doing real damage to some important parts of the University.

For 1979-80 the Committee believes that the University's most urgent needs include additional support for faculty and staff salary increases, as well as for the stipends of graduate student Assistants in Instruction; some relief in the rate of increase of self-help expectations for undergraduates on financial aid; additional resources to meet very pressing needs in the maintenance of the physical plant; and finally, a small but important flexible fund with which to respond to a number of problems in a variety of offices.

In order to develop the resources to meet these needs, in even a very modest way, we have no choice but to recommend serious cuts in some areas, as well as substantial increases in student fees. In particular, we are projecting total savings of more than $250,000, achieved mainly by consolidating the space assigned to a number of program activities and thus reducing the effective size of the physical plant which we have to support. In addition, we also expect that there will be shifting of resources within many budgetary units as they attempt to address new and compelling needs by making compensatory reductions in other areas. It may be, therefore, that, even though overall staffing levels will remain constant next year, there will nonetheless be cuts in some departments and offices in order to provide vitally needed help to other units that are even more severely pressed.

We are also recommending an increase in combined student charges -- tuition, room and board -- that are somewhat higher than last year's. For undergraduates we are recommending an overall increase of $594 or 8.2%, compared to the 7.8% increase adopted for the current year. For graduate students we are recommending comparable increases in tuition, in room and board at the Graduate College, and in rents in the various graduate student apartments. (The exact distribution of those charges will be described in more detail later in this report.) Finally, we are recommending a 6 1/2% increase in rents for faculty and staff housing.

Our specific recommendations include the following:

Salary Pools. In a time of serious inflation, salaries in many organizations -- especially non-profit institutions -- have a difficult time keeping pace with increases in the cost of living. As a labor-intensive organization dependent largely on income sources which generally do not keep up with inflation (at least not in the short run), universities are particularly vulnerable in this regard. At the same time, a university is particularly, perhaps uniquely, dependent on the dedication and support of its faculty and staff, which means that the morale of its employees is enormously important. We believe, therefore, that especially in a year of very high inflation, funds to provide reasonable salary increases are absolutely essential. Few if any universities can insulate their employees entirely from the effects of rapid inflation, but we must do as much as possible.

For 1979-80 we are recommending a general funds allocation of $4,133,000 for salary increases and related personnel benefits. This allocation is sufficient to provide an overall salary pool for faculty and staff of approximately 6.5%, and to provide an additional central fund of approximately $135,000 with which to meet the special salary needs of a few specific groups in the academic and non-academic staffs. The overall allocation will also be sufficient to provide increases of $300 in the stipends for graduate student Assistants in Instruction (which have remained unchanged at $3400 for pre-generals students and $4000 for post-generals since 1975-76).

Undergraduate Financial Aid. Princeton is one of the few universities in the country that has been able -- even in the current economic climate -- to keep undergraduate admissions decisions entirely separate from financial aid considerations. Consequently, we have provided aid for all admitted students who have a demonstrated need. The University has been able to sustain this policy for several reasons: first, financial aid has been given an extremely high priority in the normal budgeting process; second, alumni and friends have been unusually generous in providing support for the financial aid program (for example, endowment for total graduate and undergraduate financial aid was increased by gifts of $21 million during the recent development program); and finally, the development of federal and state government financial aid programs has provided a critical margin of relief at a time when the University's own resources -- even with significant increases in endowment -- have been under severe strain.

The scholarship budget has been adjusted upward for 1979-80 as a result of the higher student charges we are recommending. In addition, we are recommending a further increase of $75,000 in this budget in order to relieve some of the pressure on the "self-help" component of the financial aid package (loans plus earnings from summer and term-time jobs). In accordance with the recommendation of the Faculty Committee on Undergraduate Admission and Financial Aid, we are proposing that the rise in the standard self-help expectation be limited to $110 in 1979-80, rather than the $160 that had been projected by last year's Priorities Committee.

This improvement in the financial aid package is possible, at least in part, because of proposed increases in federal aid funds. These federal funds will help the University meet the overall scholarship budget of $5,991,000 -- as opposed to the $5,209,000 budgeted for the current year -- without having to consider even higher tuition charges, or modifications in the aid program (as was done in the budget difficulties of the early 1970s), or deeper cuts elsewhere in the University. Even this important federal help, welcome as it is, will offer only very temporary relief, however. Our forecasts indicate that sustaining our current aid policies would require increases in general University funds of more than one million dollars by 1983 -- over and above the funds provided by these federal and state programs and by the substantial commitment of University endowment that has already been made.

Despite the substantial commitment that has been made to the current aid program, many members of the University community have in recent months expressed worries about the adequacy of the entire financial aid system, particularly about the amount that aid students are expected to provide from loans and job earnings. As a Committee, we are very much concerned to make certain that work (and loan) expectations are reasonable, and that term-time work obligations do not interfere significantly with the ability of aid students to take advantage of what Princeton has to offer. Therefore, we very much endorse the decision of the Dean of the College and the Faculty Committee on Undergraduate Admission and Financial Aid to undertake a careful study of the financial aid program in order to determine whether long-term adjustments in the self-help expectations should be considered.

Physical Plant. We are persuaded that additional resources must be devoted to the maintenance of the physical plant if we are to keep important aspects of the plant from deteriorating. A special subcommittee of our Committee was formed to review the current situation with members of the Planning, Plant, and Properties Department, and that group concluded that some immediate attention is essential. If the daily maintenance of the plant is allowed to slip, we will be faced with much larger costs at a later point, when the small problems which exist today develop into major repair bills.

For 1979-80 we are recommending that the maintenance budget be increased by $100,000 over and above an adjustment for inflation. The General Manager of Planning, Plant, and Properties has requested $600,000 in additional annual operating funds, over and above the normal allowance for inflation, in order to maintain the plant adequately. Our recommendation of $100,000 falls short of this request, but we believe that it will be effective in beginning to address some of the most pressing problems and represents a significant step in the right direction. We also believe that additional significant increases in this part of the budget will have to be considered in the years immediately ahead.

Meanwhile, the University must also undertake a parallel effort to reduce -- in whatever sensible ways it can -- the actual size of the physical plant itself. In the 1960s and early 1970s the size of the plant nearly doubled as the number of students was increased and programs were added and expanded. All the extra operating and maintenance costs of this new space were simply added to the base of the University's budget. By any reasonable measure, Princeton now has more space per student or per faculty member than almost any other comparable university. If we must reduce the base of the University's budget, therefore, it is essential to seek at least some consolidation of facilities. We strongly endorse the efforts of the General Manager of Planning, Plant, and Properties -- working with the Provost's Office and with a number of academic and administrative departments -- to achieve such consolidation.

Administrative and Supporting Services. Aside from the normal adjustments for inflation, we cannot recommend any budget increases for the various administrative and supporting services. However, a number of relatively small requests have been presented which seem to us to have considerable merit and, in general, to represent situations where a very modest amount of money could have a disproportionately large effect. We are recommending that a flexible fund of $25,000 be established to respond to the most pressing of these requests. This fund would for this year be allocated by the Office of the Provost, in consultation with the appropriate University officers. At a time when we are asking most areas of the University to settle for no increase (or an actual cut) in budget, this is an unusual allocation. We believe, however, that the amount is sufficiently small -- less than the cost of one faculty FTE -- and the potential benefits sufficiently great, that such an allocation ought to be made.

For academic departments and programs, we expect to provide an overall increase in the budgets for supporting staff and operating expenses sufficient to cover only our standard allowance for inflation, 6% in most cases. The same is true of central administrative and service departments: any increases in the particularly hard-pressed departments can be funded only if compensatory reductions are found elsewhere in the budget.

Support for the Department of Food Services is a matter that has been of special concern to many people on campus, including members of this Committee, and one which the Committee has consequently considered with great care. We realize that the Food Services budget has been particularly hard hit by inflation over the last year, and that the Department is currently operating within very tight budgetary constraints. Because the quality of food is so hard to quantify, the Committee had an extremely difficult time deciding on the appropriate level of funding for this budget. Because of the enormous pressure on the overall University budget, we are not able to recommend additions for Food Services at this time, but we hope -- indeed, we expect -- that next year's situation will be less constrained than this year's, for two reasons: first, we have recommended a 10% increase in the budget for food and beverages within the overall Food Services budget; to the extent that the rate of inflation in food prices is less than 10%, the budget will allow for some improvement in the quality or variety of the food. Second, we believe that steps now being taken by the

Food Services management will lead to greater efficiencies and improvements in service in the near future.

Faculty Staffing. The need for some additional faculty staffing, particularly in the more heavily enrolled departments, is serious. The Dean of the Faculty believes that approximately 10-15 full-time equivalent positions (FTE's) should be added over the next several years to cope with the teaching problems in the heavily enrolled departments, and the Committee agrees that these new positions would make a significant difference in several fields. Given the constraints on the budget, however, we are unable to recommend any increases at this time. For 1979-80, therefore, we are recommending that faculty staffing be held at this year's overall level. This means that any increases in the most severely pressed departments will have to be offset by reductions elsewhere. We recognize that this situation will in itself lead to some dislocation and difficulty, but the resources to do more are simply not available.

Graduate Student Aid. The Graduate School submitted a proposal this year requesting funds for a significant number of additional graduate fellowships, with an estimated cost of approximately $267,000. In particular, thirty new fellowships were requested to support a number of first-year students in science and engineering and a number of top fellowships for minority students. We understand the reasons for this request, and are sympathetic to the objectives, but we do not believe that the University has the resources at this time to undertake new endeavors of this magnitude. While we cannot recommend an increase in the number of fellowships, we do believe that the fellowship budget for next year should be adequate to provide approximately the same number and the same "mix" of fellowships, distributed across a similar range of departments, as is being provided in 1978-79. We fully expect, in other words, that the 1979-80 budget -- basically this year's expenditure pattern adjusted for the proposed increase in tuition -- will sustain the same pattern of support for graduate students as currently exists.

Support for Research. Last year the University adopted a recommendation of the University Research Board to allocate approximately $180,000 to academic departments based on the indirect costs collected. These funds were distributed to departments in proportion to the indirect costs collected at the full audited indirect cost rate from sponsored research grants and contracts. The purpose of these funds was to provide important assistance to the research effort in these departments, by allocating flexible funds that could be used for whatever projects were in most need of help. Such help was felt to be particularly important at this time, not only because the entire research effort has been squeezed by the various federal funding agencies and buffeted by inflation, but also because the University itself was in the process of raising the indirect cost rate from 52% (of modified total direct costs) to 64%, a move that is expected to generate more than a million dollars in additional revenue to offset the rapidly increasing cost of energy and other overhead items. The ability and willingness of sponsored research programs to sustain this increase is most welcome at a time when the overall University budget is under such severe pressure. At the same time, there is considerable concern for the health of the sponsored research enterprise as a whole.

It was hoped that some substantial allocation of funds to the departments most actively engaged in sponsored research would, at a time when the pressure on the entire research enterprise was particularly intense, bolster that research effort in several important ways: by easing the transition to the higher indirect cost rate; by providing starter grants for new faculty; by temporarily supporting research groups for whom previous contracts had expired and new contracts had not yet been obtained; by providing support for graduate students who for one reason or another could not be supported on research contracts; or by helping to purchase pieces of research equipment which could be used by several research projects.

This year the University Research Board has recommended that the amount allocated for this purpose be increased from the equivalent of two percentage points of the indirect cost recoveries to the equivalent of five points (an increase of about $290,000 in annual operating expenses). Although we believe that the needs of the research community are very real, we cannot recommend such an increase at this time. We are pleased, however, that the Provost will be able to allocate some spendable funds -- contributed as part of the recently completed development program and designated by the Trustees specifically for the support of scientific research -- to supplement the existing level of funding for next year. The precise amount that can be made available still remains to be determined, but it seems likely that a sum equivalent to something in the neighborhood of one point of the indirect cost rate will be possible for 1979-80. Although this is only a one-year measure -- and clearly less than the Research Board has requested -- it is more than will be provided for most other areas of the budget.

It should be noted that the use of these special funds does not represent a long-run solution to the problems of the research community: these are limited, spendable funds rather than endowment, and they obviously can only be spent once. It seems appropriate to propose a temporary measure in this case, however, for two reasons: first, one of the most pressing needs of the research community is support for individual projects during the difficult transition to the higher indirect cost rate, and at least some of those transitional problems should be temporary. Second, the notion of a separate research fund was adopted only last year, and departments are just now beginning to spend the money that has been allocated for the current year. Given the scarcity of resources in general, we believe that it makes sense, before recommending additional increases in funding for this program, to assess more fully than is now possible the impact of the funds which have been allocated already.

Library. In light of the general pressure on the University budget, as well as the substantial increases provided for the Library over the last two years, we are recommending what amounts to a "level" budget for next year, adjusting only for inflation in the cost of acquisitions and other operating expenses. This means that, with respect to acquisitions, the budget for new materials (including monographs, serials, government documents, etc.) would rise by 10% over the current level. Given the projected rates of inflation for these materials, we expect that this increase will be sufficient to keep acquisitions at their current level of approximately 62,500 monographs and 30,000 serials.

Our other important recommendation in this area is that the formal cost-savings program established three years ago be terminated. Significant savings have been achieved over the last three years -- and built into the budget base -- but we accept the view of the University Librarian that the present program has achieved all that it can at this time.

Computer Center. We are pleased to note that the Computer Center's request to replace the existing hardware with a new computer can be accommodated without any increases in the Center's budget (apart from the normal increases for inflation). Indeed, purchasing the new machine affords the Computer Center an opportunity to achieve some savings that could not otherwise be achieved. Accordingly, we have incorporated approximately $50,000 of such savings into our recommended budget on the assumption that the new equipment will be authorized.

Athletics. The budget we are recommending for the Department of Athletics and Physical Education provides for no increases beyond the normal adjustment for inflation. We recognize that the Athletics Department has achieved a considerable expansion of its activities -- especially in the area of women's sports -- with very little new budgetary help in recent years. It is clear that support for most individual sports is more constrained than it was even a few years ago, and this makes the vitality and success of the overall athletic program even more remarkable. The Director and his staff -- and the participants in these programs -- have done an exceptional job in this regard, and we believe that the Department's needs for additional support are real. At the same time, we simply do not have the resources in the 1979-80 budget to recommend even a modest increase in this area.

McCarter Theatre. We are recommending that the University's direct support of McCarter Theatre be held at its current level of $135,000 for 1979-80. In not providing any increase to compensate for inflation -- for the second year in a row -- we are, of course, recommending a reduction in the real level of support for McCarter. We believe that McCarter contributes in important ways to the cultural life of the University, both by producing a professional drama program and by providing a mechanism for presenting other types of performances -- dance, music, film, etc. However, given the other needs we are not able to address in this very difficult year, we believe that our recommendation is necessary and appropriate. University support is crucial to the McCarter enterprise -- because of its symbolic importance in fund raising as well as its practical importance as the Theatre's largest single contribution. Any substantial reduction in the level of support would almost certainly result in the loss of other revenues for the Theatre -- leading inevitably to very considerable difficulties for the entire McCarter operation. At this point, therefore, we believe that we should at least continue our current level of assistance for McCarter, although we are not in a position to predict the level of future allocations with any certainty.

Student Charges. We are recommending a $485 increase in tuition for 1979-80, to $5585 for undergraduates and $5685 for graduate students. These increases are substantial, but they are essential if we are to achieve a balanced budget next year while also providing any additional help at all for such purposes as salary increases, student aid, and physical plant maintenance. We are, of course, recommending concomitant increases in the budgets for undergraduate scholarships and graduate student fellowships in line with past policies in these areas.

We are also recommending that room rates in the Graduate College and in the undergraduate dormitories be increased by 6.5% next year ($62 for undergraduates), roughly in line with the increases in costs. In Food Services we are recommending somewhat smaller increases in charges, mainly to encourage more students to eat in University facilities. The rather discouraging income picture in Food Services has been caused in large part by a drop in the number of students purchasing contracts, and we are concerned about the possibility of a further decline in this number. Therefore, we are recommending that the board rates be increased by only 4% for 1979-80 ($47 for a 20-meal contract). This figure was arrived at after considerable discussion, with several people feeling that board rates should rise more than 4% and others arguing that the increase ought to be even less. Finally, we are recommending that rents charged in various graduate student apartments be increased by 6.5% next year.

While most colleges and universities have not yet announced their plans for student charges in 1979-80, we believe that the increases recommended here will not put Princeton out of line with other major private universities. Even with these recommended increases, students and their parents who receive no direct financial aid at all would be asked to cover only slightly more than half the cost of an undergraduate education at Princeton. Finally, we have been advised that these proposed increases, taken in conjunction with our salary recommendations and considered in the light of the University's overall financial situation, are consistent with President Carter's wage/price policies for non-profit institutions.

Faculty and Staff Housing. We recommend that the rents in all faculty and staff housing units be increased 6.5% next year. Again, this is roughly in line with the actual increases in operating costs for most of these units.

Before concluding this section of the report, it is worth reiterating and reemphasizing our conviction that there are important needs in almost every area of the University that will not be addressed in the budget we are proposing. Those needs will certainly not disappear in future years. Clearly, for a year or two, we can survive without responding to most, if not all, these requests. In the long run, however, we must respond in some way to at least the most important of them if the basic strength of the University is to be preserved and enhanced.

III. PROJECTIONS FOR 1980-81 AND BEYOND

It is clear that budgeting decisions must be made with a view toward the long-run needs and problems of the University, rather than focusing simply on the results -- in terms of deficit or surplus -- of any one year. For that reason, the Priorities Committee has traditionally included in its report to the President a set of budget projections four years into the future. Those projections are usually based on an extrapolation of the Committee's recommendations for the upcoming budget year (with a few modifications of some of the major policy assumptions), and they enable us to look beyond the immediate situation to assess the longer-run consequences of our recommendations.

The projections which have been developed this year are sobering, even more sobering than anything that has been said previously in this report about the current economic climate or the budget for 1979-80. If the budget assumptions which underlie our recommendations for 1979-80 are extrapolated into the future, the projections show deficits of approximately $500 thousand for 1980-81, $1.1 million in 1981-82, and $1.5 million in 1982-83. (The specific assumptions used to develop these projections are described in Appendix B of this report.) It is clear from these projections that we cannot expect to continue increasing budgets and charges at the same rates we are recommending for 1979-80. If we are to preserve our long-run financial balance, some expenditures will have to be reduced or new income will have to be generated -- or more likely some combination of these two approaches -- to close these projected gaps.

The reason for this general pattern of increasing deficits is quite clear: the rate of growth of our traditional sources of income is simply not keeping pace with the rate of growth of most expenditure items. The projections assume an overall rate of growth of expenditures for the University as a whole of approximately 7% per year. (Salaries and related personnel benefits, which together make up well over half the University budget, are assumed to increase almost exactly 7% per year: we have projected 6 1/2% salary pools each year, with increases of one-half point each year in the benefit rate to cover the growing costs of personnel benefits.) On the income side, however, most items are expected to increase by at most 6% per year; even with increases in student charges in the 8% range each year, the overall rate of increase is below 6 1/2% per year. With expenses increasing at an annual rate of about 7% and income rising less than 6 1/2%, it is discouraging, but not at all surprising, that the projections show a pattern of steadily increasing deficits.

The options for dealing with a situation of this kind are quite limited. The enclosed table shows a purely hypothetical and illustrative set of examples which suggest the budgetary effects of changing our assumptions about salaries, student charges, and major maintenance expenditures. Each example, if actually adopted as policy, would have serious implications for at least some segment of the University community and, taken in combination, for the health and vitality of the institution as a whole. Given the seriousness of the financial situation, however, it is clear that difficult choices will have to be made in all areas of the budget, including these.

Salary Pools. Providing salary pools of only 6% in 1980-81 and succeeding years, rather than the 6.5% assumed in the projections, would reduce expenditures significantly -- by approximately $260 thousand in 1980-81 and even larger amounts in 1981-82 and 1982-83. Obviously, any reduction in salary pools would have serious implications for faculty and staff morale -- particularly in a period of very rapid inflation -- as well as for our ability to attract and retain the best people at all levels.

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Four-Year Projections*
(in thousands of dollars)

	FY80	FY81	FY82	FY83
Projected Surplus (Deficit)	5	(502)	(1099)	(1503)

*These projections are based on the assumptions described in Appendix B.

Effects of Varying Major Policy Assumptions
(in thousands of dollars)

	FY81	FY82	FY83
1. Provide 6% salary pools each year rather than 6 1/2%	260	556	891
2. Increase student charges (tuition, room and board) by an additional 1% each year	231	504	819
3. Reduce the major maintenance expenditure level by $500,000 per year	100	200	300
Total	591	1260	2010

Student Charges. The budget gap could also be reduced by increasing student charges even faster than we have in recent years. Increasing tuition by 10% per year and room and board by 7% each would, for example, provide additional revenue of $231 thousand in 1980-81 (after adjusting for the higher levels of student aid that would be required if our current student aid policies are continued). Increases of this magnitude would represent a real burden for many students and their families, even if matched by corresponding increases in financial aid.

Major Maintenance. Annual expenditures for major maintenance have grown substantially in the last two years, and are projected to continue in future years at something in the $4-5 million range. It is possible to reduce major maintenance expenditures by deferring basic maintenance projects, but for all the reasons described in our discussion of the operating budget for physical plant, we believe that such an action would be extremely short-sighted. These expenditures could also be reduced, however, by cutting the amount we spend on improvements that are more discretionary -- though not easily foregone -- such as the renovation of a laboratory for a new faculty appointment or improvements in the dormitories; another approach would be to reduce the total amount of physical plant we need to maintain by consolidating activities. Because major maintenance expenditures are financed initially out of a reserve fund and charged back to the operating budget over five years, reducing the level of such expenditures by $500,000 per year would reduce the drain on the operating budget by only $100,000 in the first year, but that amount would grow over time to $500,000 per year.

This table does not capture any of the subtleties of the problems that lie before us, but it does give a clear sense of the overall situation, and of the general dimension of the problem: even if all three examples listed in the table were actually implemented as policy in future years --

and we want to stress their purely illustrative nature -- the budget would be only slightly better than balanced. Given the seriousness of those actions, and the concern we have about all of them, we are driven once more to the conclusion that a serious examination of the budget base is in order. Eliminating or curtailing programs is obviously a complex task and we cannot be certain at this point what level of savings we can realistically expect. Nonetheless, we are persuaded that it is better to attack the long-range budget problem through a systematic effort to reduce the base of the University's budget, than by looking only (or even primarily) at the more immediately flexible elements of the budget such as salary levels and student charges. We believe that such a review should begin as soon as possible, so that at least some of the alternatives might be seriously explored before the start of the next budget season in the fall. We also wish to restate our conviction that it is better to reduce the budget base by curtailing or eliminating specific programs or services than to impose across-the-board cuts: we believe that principle makes as much sense when we are coping with a pattern of growing deficits as when we are attempting to redirect resources to such high-priority items as salaries, student aid, or the adequate maintenance of the physical plant.

It is essential also, as we seek to develop new income sources for the future, that we place major emphasis on those fund-raising efforts intended to undergird the University's existing programs and services. If Princeton is to remain a great university, we need to have the flexibility to develop new programs and explore new fields of knowledge, but the current economic plight is such that we ought to be cautious and very selective about any new ventures. At a time when we are forced to consider substantial reductions in the base of existing activities, it will simply not be possible to do all that we would like to do.

Projections of this kind clearly involve an enormous amount of uncertainty. In a budget as large and as complicated as Princeton's -- and with the overall national and international economic climate in considerable turmoil -- swings of several percentage points in one or more of the income or expenditure categories are entirely possible, perhaps even likely. It is certainly conceivable -- although in our view not probable -- that most of these swings will be in a favorable direction, with the result that the problems we have forecast will disappear and the budget will remain in balance without any of the major adjustments described above. It is just as likely, however, that the net effect of future swings will make our budget picture even worse, so that yet more dramatic adjustments would be required. Indeed, one of the most discouraging aspects of these projections is that the uncertainties do not appear to be perfectly symmetrical. There is serious discussion in Washington, for example, about reducing the amount of funding for the undergraduate financial aid programs just authorized last fall; there is a very real possibility that we will be required to increase our contributions to employee pension plans as a result of recent federal regulations with respect to equalizing benefits for men and women; and the recently published regulations implementing Title IX of the Higher Education Act might well necessitate additional funding for women's athletics. None of these imponderables is built into our projections.

Developing these projections has substantiated and reinforced the somber view of the future we have tried to convey throughout this report. In looking at the growing budget gap forecast for 1980-81 and beyond, as well as the very real needs that cannot be addressed adequately in the proposed budget for 1979-80, we are persuaded that (1) this gap is not caused by the budget problems of a few departments, but is intrinsic to the economic picture facing the entire University, and indeed all of higher education; and (2) our budget problems are not the result of essentially temporary dislocations but instead are caused by a more permanent -- and continuous -- imbalance between streams of income and expenditures, reflected in the projections of a budget gap that widens over time.

Since we believe that long-run financial equilibrium is essential for the health of the University -- educational health as well as financial -- it is essential for us to undertake a fundamental review of University programs in order to make certain that we concentrate our future resources and energies on those activities which are most vital. The kinds of adjustments that will be necessary to keep the budget in balance will almost certainly be very painful, but they are essential if Princeton is to maintain its commitment to excellence over the long run.

PRINCETON UNIVERSITY

Operating Budget: Income
(in thousands of dollars)

	1977-78 Actual (1)	1978-79 Current Estimate (2)	1979-80 Projection (3)	Difference (3) - (2) (4)
1. Investment Income	23 441	26 712	28 691	1 979
2. Student Fees:				
a. Undergraduate Tuition	20 481	22 302	24 440	2 138
b. Graduate Tuition	6 582	7 093	7 823	730
c. Other	528	528	617	89
Subtotal	27 591	29 923	32 880	2 957
3. Gifts & Grants (non-govt):				
a. Sponsored Projects	2 685	2 709	2 709	--
b. Other	9 076	9 236	9 676	440
Subtotal	11 761	11 945	12 385	440
4. Federal & State Government:				
a. Sponsored Projects	63 202	66 715	72 100	5 385
b. Other	3 004	3 123	4 283	1 160
Subtotal	66 206	69 838	76 383	6 545
5. Auxiliary Activities:				
a. Athletics	558	650	650	--
b. Dorm & Food Services	9 829	10 114	10 685	571
c. Rental Housing	2 898	3 062	3 261	199
d. Other Income	2 105	2 129	2 363	234
Subtotal	15 390	15 955	16 959	1 004
6. Service Departments:				
a. Computer Center	3 134	3 284	3 316	32
b. Other	2 469	2 703	2 986	283
Subtotal	5 603	5 987	6 302	315
TOTAL	149 992	160 360	173 600	13 240
Less Interdeptmtl Transactions	5 431	5 758	6 122	364
GRAND TOTAL	144 561	154 602	167 478	12 876
Summary of Sponsored Projects:				
a. Direct Costs	58 569	61 411	65 696	4 285
b. Indirect Cost Reimb	7 318	8 013	9 113	1 100
Total	65 887	69 424	74 809	5 385

PRINCETON UNIVERSITY

Operating Budget: Expenditures
(in thousands of dollars)

	1977-78 Actual (1)	1978-79 Current Estimate (2)	1979-80 Projection (3)	Difference (3) - (2) (4)
1. Academic Departments and Programs:				
a. Instructional Costs				
1. Faculty, academic year	15 926	17 486	17 575	89
2. Teaching Assistants	1 973	2 046	2 152	106
b. Other salaries, expenses and benefits	26 382	28 152	29 406	1 254
Subtotal	44 281	47 684	49 133	1 449
2. Plasma Physics Laboratory	43 009	44 921	48 506	3 585
3. Undergraduate Scholarships	4 756	5 209	5 991	782
4. Graduate Fellowships:				
a. University Fellowships	3 092	3 512	3 950	438
b. Other Fellowships	1 877	1 747	1 850	103
Subtotal	4 969	5 259	5 800	541
5. Other Student Aid and Miscellaneous Fellowships	839	839	839	--
6. Central University Services:				
a. Library	6 724	7 505	7 681	176
b. Computer Center	2 593	2 812	2 635	-177
c. Security	1 768	1 806	1 811	5
d. Other	2 596	3 194	3 301	107
Subtotal	13 681	15 317	15 428	111
7. Administration:				
a. Academic Administration and Student Services	5 325	5 643	5 775	132
b. General Administration and Expenses	6 633	6 982	7 115	133
Subtotal	11 958	12 625	12 890	265
8. Athletics	2 354	2 324	2 374	50
9. Physical Facilities	22 515	23 957	25 335	1 378
10. Transfer to Reserve for Renewal and Replacement	2 444	2 631	2 966	335
11. Salary Increases (incl ben)	--	--	4 133	4 133
12. Allowance for Contingencies	--	100	200	100
TOTAL	150 806	160 866	173 595	12 729
Less Interdeptmtl Transactions	5 431	5 758	6 122	364
GRAND TOTAL	145 375	155 108	167 473	12 365
13. Estimated Income	144 561	154 602	167 478	
14. Surplus or (deficit)	(814)	(506)	5	

Notes to Summary Tables

GENERAL NOTE: Some of the lines of these summary tables have been discussed in detail in the report proper, and no attempt will be made here to summarize information which appears elsewhere.

Income

1. Investment Income. This primarily represents the income from investments, mainly the University's endowment. The increase here is mainly attributable to a projected increase in the income per unit in the primary investment pool. Projected new additions to the endowment are reflected. Also included in this line is income generated from the first phase of the Princeton Forrestal Center.

2. Student Fees. The increase in tuition revenue is almost exclusively the result of the higher tuition rates being recommended. The increase in other fees is due to higher charges for applications, continuing education courses, and dependent medical fees.

3. Gifts and Grants (non-government). The increase in other gifts and grants primarily reflects modest increases in funds supporting various departments. This line includes the Annual Giving campaign on a cash-received basis.

4. Federal and State Government. Most of the increase for sponsored projects is for the direct operating expenses of the Plasma Physics Laboratory. Other direct sponsored expenditures are expected to increase at approximately the rate of inflation. Increases in non-PPL indirect cost collections reflect both the increase associated with higher direct sponsored expenditures and a full year of the higher rate implemented during FY79. The increase in other government income is mainly for student aid, primarily reflecting increased support from the recently enacted Middle Income Student Assistance Act.

5. Auxiliary Activities. Most of these activities are discussed in detail in the report. The increase in "other" auxiliary activity income is primarily due to increases in charges for Commercial Properties and special events.

6. Service Departments. The increase in Computer Center income represents higher rates for all users offset in part by a decrease in the computer time required by the Plasma Physics Laboratory. The "other" category includes income from machine shops and from printing and duplicating services.

Expenditures

1. Academic Departments. The faculty line reflects recent additions funded by restricted endowments and term gifts. Teaching Assistant costs increase with tuition. The increase in other salaries, expenses, and benefits is due mainly to a higher estimated level of sponsored research, and to inflationary increases in general operating expenses.

2. Plasma Physics Laboratory. Increase represents higher government-funded direct operating expenses.

5. Other Student Aid and Miscellaneous Fellowships. This line includes miscellaneous awards (prizes, post doctoral fellowships and the like). None of these items require general funds.

6. Central University Services. The decrease shown for the Computer Center is a combination of the reductions described in the report and lower amortization charges.

10. Transfer to Reserve for Renewal and Replacement. This line reflects the costs of major maintenance and capital equipment. Contributions are determined by a formula using a five-year moving average of actual expenditures from the reserve. The increase shown here reflects mainly higher expenditures for major maintenance in recent years.

Appendix B

Principal assumptions Used to derive Preliminary Budget Projections for FY81, FY82, and FY83

General Assumptions

Undergraduate enrollment remains at approximately the expected FY80 level of 4440. Graduate enrollment decreases by approximately 40 students by FY83 to approximately 1380. Faculty and supporting staffs remain at their FY80 recommended levels. General operating expense inflation is 6%. Undergraduate admission offers continue to be made without regard for financial need.

Specific Income Assumptions

Investment Income Used - Income per unit in the primary investment pool increases 6% per year. Additions to principal amount to $7 million each year with three-quarters of the income being used to relieve general funds in subsequent years.

Tuition and Fees - Tuition increases 9% per year for both graduate and undergraduate students. Room and board charges increase 6% per year for undergraduates and for graduate students.

Contracts & Grants for Sponsored Projects - Sponsored project direct costs increase in line with general inflation and salary increases except for the Plasma Physics Laboratory, which increases at a slightly faster rate. Indirect cost recoveries on non-PPL projects increase in proportion to direct costs.

Other Gifts & Grants - Annual Giving increases in line with general inflation. All major term grants or the equivalent are expected to be replaced and to increase generally with inflation.

Auxiliary & Service Operations - Faculty and staff rents increase 6% per year. Married graduate student housing rents increase 6% per year. Computer Center rates rise 6% per year. Cash food prices increase 6% per year. Other service rates increase 6 3/4% per year. Income from commercial rental properties and special events increases slightly.

Specific Expenditure Assumptions

Undergraduate Financial Aid - Expenditures increase as tuition, room and board, and other expenses increase. The loan expectation increases $50 per year. Income from employment during the summer and the academic year increases only to the extent that wage rates increase.

Graduate Student Support - The number of students receiving fellowships from government and other outside sources decreases slightly. The support of students on University fellowships decreases in accordance with the plan being recommended for 1979-80.

Library - General funds for acquisitions increase at a rate sufficient to keep total funds available for acquisitions growing 10% per year.

Physical Facilities - Energy prices increase 10% per year. Energy consumption assumes a continued conservation program plus savings resulting from capital investments, adjusted for a 3% annual increase in electricity used. Utility plant major maintenance costs increase approximately 10% per year. Taxes and sewer charges increase approximately 8% per year. Food and other items are assumed to increase 6% per year.

Transfer to Reserve for Renewal & Replacement - Transfers increase approximately 8.2% per year reflecting the impact of increasingly large major maintenance expenditures experienced in recent years and projected for FY80, FY81, and FY82.

Personnel Benefits Costs - The average personnel benefit rate increases by one-half percentage point per year in FY81, FY82, and FY83 reflecting primarily the estimated impact of higher social security tax rates and wage bases.

Salary Increases - A salary pool of approximately 6 1/2% is provided each year.

Princeton University: **Department** Provost APPENDIX C

To Members of the CPUC

Date December 18, 1978

Subject Tentative Conclusions of the Priorities Committee

From N. L. Rudenstine

INTER-OFFICE CORRESPONDENCE

As I reported to you earlier in the fall, the deficit for the current year (1978-79) is now projected at approximately $500,000, up from the $85,000 deficit projected last January. As we look forward to next year's budget, we find ourselves faced with a difficult situation: part of this year's deficit will carry over into the future, while inflation will continue to drive up costs at a very rapid rate. Moreover, the Priorities Committee was presented over the course of this fall with more than $2 million in new requests. Almost all of these requests seemed to us to represent real needs, and many of them seemed quite urgent. Some of the more experienced Committee members expressed the view that this was one of the most difficult years in the Priorities Committee's ten-year history.

Given this general situation, with several very pressing claims on almost non-existent available resources, the Committee has had considerable difficulty in arriving at a set of tentative recommendations. The process was exacting, and the Committee will want to take additional time over the next few weeks to reflect on its preliminary conclusions. In particular, we need to consider them in the context of the four-year projections that are now being prepared.

Several of the requests presented to us over the course of the fall were intended to address problems that all of us agree are substantial and even pressing. However, in this very difficult year, the Committee has decided that it must husband very carefully the extremely limited resources which can be generated at the present time. We expect to recommend a balanced budget for 1979-80, but in the process we will be able to provide additional funds for only those very few critical areas which in our judgment require immediate attention; a clear if painful implication is that we must turn down all other requests. To have chosen a different approach - trying, for example, to give some gesture of support to a larger number of areas - would simply have resulted in a series of essentially ineffectual decisions. In our view, it seemed far better to try to make a measurable difference in a few areas, than to run the risk of dissipating our resources by spreading them thinly across the board.

We recognize, however, that even these additional allocations are extraordinarily modest, and that we must find a way in the very near future to address several important needs that cannot be met now, but also cannot be deferred indefinitely. Consequently, we are recommending that, beginning this spring, the University should undertake a comprehensive review of its programs, services, and departments in order to identify sensible ways of selectively reducing our budget base in future years. Unless that base can be reduced, all of our programs and services will continue to be battered by inflationary increases in costs, and the problems we are unable to solve today will only multiply and worsen.

For 1979-80 the Committee has tentatively concluded that the priority areas which call for immediate additional support include salary increases for faculty and staff, as well as for graduate student Assistants in Instruction; some relief in the rate of increase of self-help expectations for undergraduate financial aid; assistance to meet very pressing needs in the maintenance of our physical plant; and finally, a small but important contingency fund with which to respond to a number of needs in a variety of offices.

First, with respect to salary increases, we believe we must do something beyond the 6.5% figure projected by last year's Priorities Committee. While the general salary pool for the University will most likely be set at 6.5%, we do expect to provide an additional central fund (in the $130,000-$140,000 range) with which to meet some specific salary needs of academic and non-academic staffs. Increases in stipends for graduate student AI's, moreover, will be recommended in addition to the allocations for faculty and staff.

Second, 1979-80 budget projections developed by last year's Priorities Committee include a rise of about $160 in the self-help expectation for undergraduate financial aid students (loans plus term-time and summer-work earnings). We are tentatively recommending that the projected increase be reduced - on average - by $50 per student, and that additional scholarship funds make up the difference. We recognize that there is a more general concern - particularly about the work expectation - and we very much endorse the decision of the Dean of the College and the Faculty Committee on Undergraduate Admissions and Financial Aid to undertake a careful study of this problem in order to see whether further adjustments are in order for future years.

Third, with respect to the physical plant, we are persuaded that some budgetary increase must be provided if we are to keep important aspects of the plant from deteriorating. The amount we expect to recommend - something in the $100,000 range - will clearly not be enough to address all the most urgent needs, but it will at least permit us to make a significant first step in that direction.

Finally, as mentioned earlier, we do expect to allocate contingency funds - something in the $25,000 range - to help the operating budgets of a number of offices and programs (at both the graduate and undergraduate levels). In all of the relevant cases, it is our judgment that a comparatively small amount of money can have a disproportionately large effect: a high yield for a modest investment. This contingency will be administered by the Office of the Provost, in consultation with other administrative offices.

In order to develop the resources to meet even these most urgent needs, we have no choice but to recommend cuts in some areas, as well as substantial increases in student fees. In particular, we must realize a quarter of a million dollars in savings to make our budget, and this will not be an easy result to achieve. We strongly endorse the efforts of the General Manager of Planning, Plant and Properties - working with a number of academic and administrative departments - to consolidate many program activities and thus to reduce the effective size of the physical plant. It seems clear to us that even more consolidation in the future will be essential if we are to maintain properly the plant as a whole.

Not only will we have to achieve approximately $250,000 net in savings (through cuts and consolidation), we also expect that there will be some inevitable shifting of resources within a good many budgetary units as they try to address new and compelling needs by making compensatory reductions. It may be, therefore, that even though FY80 general staffing levels on the administrative and academic sides will remain constant, there will nonetheless be cuts in some offices and departments in order to provide vitally needed help to others that are even more severely constrained.

We expect to recommend an increase in combined student charges - tuition, room and board - somewhat higher than last year's. For undergraduates, we are considering an increase of about 8.3%, which is approximately $600, compared to the 7.8% increase adopted in 1978-79. For graduate students there would be comparable increases. The Committee has not yet decided, however, about the precise distribution of charges among tuition, room and board. Finally, there would be a recommended rise in rents for faculty and staff housing.

Because the Priorities Committee finished this stage of its deliberations only last Wednesday, this written text has not been reviewed with the entire Committee, although several faculty, student and administrative members have had an opportunity to check it carefully. I believe that it represents accurately our sense of the University's financial situation, and our general - if tentative - conclusions. We expect to reach our final recommendations in early January, and the report describing those recommendations - as well as our reasons for reaching them - should be available for discussion at the January meeting of the CPUC.

In closing, several points should be emphasized. Even though we can see our way to a recommended balanced budget for FY80, and even though we believe it is extremely important to achieve balance, no one should underestimate the difficulties involved in accomplishing that result, or think our financial problems will thereby be resolved. Only by denying most requests, by identifying $250,000 worth of savings, and by raising student charges, have we been able to deal with this year's situation. Any fundamental analysis of our total

University budget reveals that the inflation rate driving up many categories of basic expenditures - fuel, library acquisitions, and employee benefits, for example - is consistently and significantly outstripping the rate at which our sources of income are rising. As long as many of our expenses continue to climb at 10% or more each year, we cannot avoid having to make further budget adjustments in future years. The only solution, in our judgment, lies in our ability to accomplish enough selective reductions in the base, so that we ultimately achieve a closer balance between the costs of supporting that base and the income available to us.